VIRGINIA:

VIRGINIA STATE WATER CONTROL BOARD MEETING

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ORIGINAL

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APPEARANCES:

BOARD MEMBERS:

Mr. W. Shelton Miles, II, Chairman

Ms. Komal K. Jain, Vice Chairman

Mr. Jack W. Kiser, Member

Mr. John G. Thompson, Member

Mr. Thomas D. C. Walker, Member

Mr. Michael McKenny, Member

Mr. Robert H. Wayland, III, Member

Mr. David K. Paylor, Director, DEQ

Mr. Alfred G. Albiston, Assistant Attorney General

CHAIRMAN MILES: The room will come to order, please. This meeting of the State Water Control Board is now called to order. All members are present, accept for Vice Chairman Jain. She called and said there was a traffic problem; but will be here shortly.

CHAIRMAN MILES: Senator Houck, I understand is present in the room, and has informed the staff he has a very tight schedule today, and very much wanted to offer a comment on matters that will appear on the agenda later. We believe the body will go ahead and accommodate him now.

SENATOR HOUCK: Thank you, Mr. Chairman, members of the Board. I did not realize I was going to be given deference over your agenda. I appreciate the courtesy of that.

I would like to provide you a few comments this morning as relates to a topic that is on your agenda later about the pending application of Dominion's Resources for the, at the North Anna Nuclear Power Plant station.

I need to make just a couple of

preliminary comments. I had represented citizens of the 17th Senatorial District for the past twenty-four years, which includes Spotsylvania County, Louisa County, Orange County, the City of Culpeper, and some other outlying areas. So I have been actively involved with the citizens and the issues of Dominion as relates to Lake Anna for over twenty-four years.

I need to also tell you that I feel with all my heart, that Dominion Resources is a good corporate citizen of Virginia. I don't think there is any doubt in my mind. I think they have demonstrated that time after time in many different ways.

Also, in any mind, my own personal opinion, I don't think there is any doubt that we need to provide more electricity production in this state. I don't think there is any doubt about that, given the demand and increased population growth et cetera.

I would also like to say to you that I have been working on this particular issue for well now two years. Citizens who live there, around the lake, particularly on the warm side of the lake, came to me with the concerns about the water temperatures. And if there was one thing that I have been successful in doing over the last couple of years is getting the parties to sit down together. The citizens there around Lake Anna,

Dominion Resources, rise in the room, David Paylor, DEQ and their staff and I would be totally remiss if I didn't say what an outstanding job in the work that they do. Other interested parties we spent countless hours and countless meetings trying to formulate some type of consensus about this issue as relates specific to the temperature of the water and the safety of the citizens who use Lake Anna, particularly there on the warm side.

We were successful in those meetings; again, I would certainly be remiss not to commend Dominion for developing a voluntary monitoring program to keep track of the temperatures on the warm side, to post that on web base access so the public could gain that knowledge and could make decisions about using the water as the temperatures go up.

But I have to tell you now after two years of earnest work, many, many, many hours I have spent as well as the staff and citizens, and Dominion and others, I sort of find myself here on October 25th, asking you to insure the same, to answer, if you will, the same question that I started with back when this topic was first proposed to me. And that is those elevations in water temperature, does it pose a significant health risk, safety risk to the citizens who use Lake Anna? As you well know, Lake Anna is a very

vibrant part of Virginia. It is one of our top tourism spots today in the Commonwealth. There has been a great deal of investment, not only by private property owners, but commercial establishments all around Lake Anna it is now really a hub in central Virginia for economic activity as well as those who have invested their lives. They have invested their livelihood.

There is a simple question I started with is I think what I'm called upon to do as an elected public citizen, I think you are given the same responsibility, is to insure that the health, safety, and welfare of the citizens is given the highest priority; in fact, is given the utmost priority.

I would hate for any decision to be made as relates to this topic before you today, or into the future, and somehow that question of health and safety of the citizens who use and access that lake, whether they live there or whether they visit there, I would not, I would hope we would all agree, and I don't think Dominion disagrees with this, we certainly want to insure that the health, safety, and welfare of the citizens is put at the highest level of all of our considerations.

Now I know, because I moved to that area in the early 1970s. When Lake Anna was being

developed by Virginia Power, there was a great deal of focus put on the recreational aspect. In fact, it still is. Thousands and thousands of citizens enjoy it. But as relates to the water temperature on the warm side of the lake, there is a question there as to whether that increased temperature, when it gets to a certain level, does it pose a risk to the health and safety of the citizens? That information will be before you today, and what I'm here for is to ask you to insure all other considerations that the safety and health and welfare of the citizens is given the highest priority decision making that you can.

I thank you for the courtesies of allowing me to be here to provide these comments to you. Again, I would like to thank DEQ for the outstanding work, Dominion, the citizens, all who have been working on this question together. Unfortunately it now falls in your lap, based on all the testimony that has been gathered and all of the analysis that has been done but that question that I started with over two years ago, to me is still paramount. And I hope when you finish your deliberations today, that you will make the decision without a doubt, any doubt at all, that the safety and health of the citizens is being protected.

Thank you, Mr. Chairman.

CHAIRMAN MILES: Thank you.

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CHAIRMAN MILES: Item III on the agenda today is the Permit matter. Dominion North Anna Power station. VPDES permit.

MR. FAHA: Mr. Chairman, members of the Board, good morning. My name is Tom Faha. I'm from the Northern Regional office, and with me today is Susan *** She is the permit writer for the permit we are about to present to you.

The first thing I want to say is Dominion Power station is a permit reissuance. The permit actually expired back in the beginning of January '06. It has been expired about two years ago. Part of the reason for the long reissuance delay is that I think you should be aware that Dominion is considering putting two new units at the facility, and this permit, the reissuance process, got wrapped up with Dominion's application and process to the regulatory commission, and the two processes got intertwined and this process was delayed. Also there is the public interest concern.

Back in the September Board Meeting we

presented to you a rather large packet contained a new draft fact sheet, additional correspondence with EPA, and a summary memo that we prepared on all comments that we received that some, you know, actually reduced the number of comments and about eight of the actual specific comments from number Local 150.

What we are going to do here this morning is take about fifteen minutes again to present an overview of the issue and try to go through all the comments.

The facility is located in Louisa County, in the lower left-hand corner of the slide. Louisa is in the central part of the state, the large blow up is a picture of Lake Anna. It borders both Louisa County, Orange County and Spotsylvania County, and downstream it is the North Anna River which quickly exits Louisa County and flows goes into Hanover County. The DALCAN recommends that, as I started out by saying the two units and the primary issue is cooling water, it runs through cooling water, and that number is correct, 2.1 billion gallons per day suffers through the plant when all units are operating. That number can actually go as high as 2.7 billion gallons per day. The ultimate receiving water body is Lake Anna. The issue is important to this permit extended a few months over the

time line. The issue was first brought to the State Water Control Board in 1968. At that time the Board issued certificate 1912, that approved a discharge, and in so doing, in essence, approved the facility of the dam, the lake, and the Waste Heat Treatment Facility, and ultimately the cooling units. In 1969 the State Corporation Commission issued a license approving the dam and creation of Lake Anna and the Waste Heat Treatment Facility. In 1971-72 the dam was constructed and Lake Anna was filled; it was filled in a hurry by Hurricane Agnes. In 1972 the State Water Control Board issued a certificate requiring a minimum release of 40 cfs. Provided North Anna River downstream of the dam with a minimum flow, protect the river and those users of the river, downstream of the dam. In 1973 the Board issued a 401 certificate with a heat rejection limit of 13.54 with 109 BTUs per hour. This is the same limit that is in the permit today. In 1977 the Board issues the first VPDES permit. Essentially a design parameter. It has to do with the design of the facility. The contact **** In 1978 Unit 1 becomes operational, and in 1980 Unit 2 became operational. In 1986 the State Water Control Board approved 316(a) variance. Two years earlier the Board had authorized a study for the variance. In 1986 Dominion presented the results and

more studies by state agencies and the Board accepted the variance. The presentation was made also to increase moving on the variances, and real quick what the variance does, it allows a permittee, allows a state agency to use specific limits, NIKI projection limits in lieu of the generic temperature criteria, this is 32 degrees Celsius, on the basis of the limit. There were subsequent reissuances of the permit and variance. The permit was last issued in 2001, January 2001. As I said, it expired at the end of 2005, the beginning of 2006. Since that time it has been continued.

This is an aerial photo of the lake. This is actually the eastern half of the lake. There is another half not shown in this photo. I'll try to get the cursor up there. Move this thing over. The arrow right here is where the facility is located. Where it is discharging now. This is Dike 1. Dike 2, and then Dike 3. Those Dikes physically separate what is called these waters over here are collectively called the Waste Heat Treatment Facility. On this side of the Dikes is Lake Anna, present one. Here is where the dam is. Down through there, that is the North Anna River. There's a map flotation, a little easier to see without the color foliage here differentiating the Waste Heat Treatment Facility from the lake quickly again--where is my

cursor--the discharge cooling water enters these lagoons. These are canals that have been constructed, that had been constructed back in 1970-71, the water flows through these arms and eventually exits the Waste Heat Treatment Facility down by the arrow. Wrote 301. That's where outfall 001 is. The water travels through the Waste Heat Treatment Facility and then finally back into the lake. down here where you see the cursor.

The permit contains 25 outfalls. 12 of the outfalls go directly to Lake Anna, and they are located right next to the facility. Thirteen of the outfalls actually go into the Waste Heat Treatment Facility, where the water ultimately exits through outfall 001.

The primary issue while we are here is the large volume of cooling water that is being discharged. You should know that there are other kinds of discharges that are occurring, most of the outfalls have uncontaminated foam water, but there are some filter back flashes, osmosis reject water, and a number of places where condensate water, some all wood separators, and also there is a thirty thousand gallon a day sewage treatment plant that the facility uses, obviously, to take care of the workers.

The permit contains many treatment

conditions, as you are accustomed to seeing in a usual permit water quality ecology base, and some limitations. It is a little bit different in some respects we do have a permit that contains heat rejection limits that I have. Mentioned. The inspection permits, when I say inspection, that permit contains minimum flow releases, water going over the dam to retain flows within the North Anna River, maned those flows are 40 cfs, to make sure it is 40 cfs. That's about 20/25 million gallons per day.

In 2001, permit that was issued in 2001 contains a new condition, called Lake O contingency plan. The General Assembly had written into a statute a requirement that actually this permit, in particular contains the condition during a drought areas, like we are in right now, that permits by the option of flows at 40 cfs flow to be reduced to 20 cfs. The purpose there was to balance the need of the downstream users with the needs of the beneficial users of the people who use the lake, try to slow down the drop of the water level of Lake Anna. That condition continues at this time.

The permit also contains a standard Part 1 and Part 2 conditions that you're accustomed to see recorded and manual requirements and operations and the like. With this provision, we did incorporate

several new provisions to the permit. The first is we labeled 316(a) monitoring. Hereto before certain variance was first issued in 1986. Since then Dominion has been conducting temperature and fish and biological surveys, anyway. They have been submitting them to us on a, really on a voluntary basis. It never was a condition of the permit. This go round we felt this is actually inherent to the assurance that the permit was doing its job. So we set those surveys as an action and toward condition and due to the offices at the time.

The second thing we changed was the heat, the rate of heat rejection of the output. Hereto before, there is nothing wrong with it, the limit had been calculated to engineering that calculate energy production, the amount of energy that the electricity has produced. We made an attempt over the years to try to understand this. It's difficult to understand it is also difficult for the staff to try to verify those calculations. So with this go round, we have asked, Dominion, and they have agreed, that additional engineering calculations we have asked them to calculate the mitigation based on the temperature change, temperature of the water temperature in the facility versus the temperature as volume of water, volume of the discharge. It is something that is much more

transparent, much easier for us to understand. So it is very difficult, the variation, the variant is difficult that goes with that.

The third thing that we have is a chemical monitoring at Outfall 001, and this is where the water leaves the Waste Heat Treatment Facility and enters the lake. At the same location we have also place a whole toxicity monitoring at that outfall. Considering the treatment facility and like any large discharge kind of monitoring condition base line that same outfall. We also have entered a flow monitoring at Outfall 001. It is important that the flow be enforced there, the river flow that is leaving the facility, not necessarily the flow that is leaving Outfall 001. So again we monitor ***** flow that occur.

We asked for installation of a gage station on the North Anna River. The closest functioning gage station on the river was about twenty or so miles downstream of the dam. A little too far to assure that both 40 cfs and at the time 20 cfs was actually being accurately recorded and measured and provided. And I might add that Dominion has already has a gage station already running, and fortunately we are making good use of it right now.

And the last go round, that slide there

is 316(b) intake studies. EPA is in the process of promulgating new 316(b) regulations. 316(a) has to do with temperature, and 316(b) has to do with intake water, that means protecting aquatic life ****.

As I said, we received a great deal of public interest in this permit, and I will start out by saying we are not going to have time to go over everything that was in the Board packet ***** but we wanted to go over what we felt was probably the two most important items. But before I get into those, at the public hearing at least, the number of speakers that we had at the last aspect of it, that spoke that sort of vaguely **** was opposed to it. There was nothing but comment on those who were in favor of it, and those who were opposed had many more specific objections to it. So we tried to summarize rather different points. The two large primary objections. The first one is the regulatory status of the Waste Heat Treatment Facility. The second is the objection to the 316(a) variance related to that permit, not have a temperature returning management returning temperature limit.

The first one, the regulatory status of the Waste Heat Treatment Facility. We left off some of the objections here. The first is that permit does not protect the water quality within the Waste Heat

Treatment Facility. Likewise, the permit does not protect the people who are using and recreating in the Waste Heat Treatment Facility. The Waste Heat Treatment Facility should be considered waters of the United States per Federal Regulations. Lastly, DEQ issues VWF permits for activities within the WHTF.

The staff response on this matter. Since inception, back in 1968, clearly the state's intention, both the Board and State Corporation Commission, that two bodies of water would be created, one was to be Waste Heat Treatment Facility, it's function was going to be serve as cooling the waters prior to its entry back into the lake. So what we have done here is, (comma)that line treatment facility.

Second, there is restricted access to this facility. There are no general, no state parks, no general access *** to the general public. The people who use it are the people who live around it, and those people also have access to the marina with Dominion. VPDES permit regulation, definition of surface waters excludes treatment facilities as the basis for ****. In response to comments requests that we received, we said since the agency has issued in general point his opinion on the matter; the Attorney General responded back, November 30th, about a year ago, and that letter is in

the Board's packet, confirming the agency's position that we were not within the right limits **** section within the Treatment Facility. With regard to the VP permit, the VWP regulation does not exclude treatment facilities. They were like in the agency an option as to whether we feel it appropriate to regulate the VWP permits with limits.

The second overriding comment had to do with the 316(a) Variance, and the backup permit has no temperature limits. Here the objection, that again there are no temperature limits in the discharge. Such, Dominion thereby has the potential to heat the lake to any temperature without repercussions. It is noted that many of the permits throughout the country have maximum temperature limits in their permits, then why doesn't DEQ.

The next bullet, 316(a) Variance, ignores temperature criteria. The last bullet up there is N. fowleri amoeba has made national news here recently. Amoeba is a parasitic if exposed to it and which it can affect brain tissue. Amoeba is present and a threat to human health. **** death ten days or so. A note from Cindy saying this information was provided to us recently confirming that amoeba had been found and identified within the lake and Waste Heat Treatment

Facility.

The staff's response to these comments. First, the permit does cap the amount of heat Dominion can discharge. through heat rejection. It is not a maximum temperature per se; but it serves the same purpose by saying whether it's February or in August, Dominion can only add the same amount of heat through the discharge. The ultimate temperature of the lake and actually the Waste Heat Treatment Facility, primarily the function of the meteorological condition, just like all water bodies in Virginia as winter approaches the lake cools off and as summer approaches the lake heats up. The temperature near outfall 001, where the water is returned to the lake, is similar, usually runs from two to three dorees feet warmer than the water in the lake that differs through a fishery's biological survey has been shown to be inconsequential to the biota, the fish in the water at Lake Anna.

THE COURT: Clean Water Act specifically allows the variances from having to use temperature, maximum temperature limits. In fact, the nomenclature 316(a) actually reference to that part of the Clean Water Act that's known as 316(a) **** statute. As I said, Dominion has been conducting annual surveys of the lake, and also the North Anna River. Those biological surveys

have shown a healthy fishery. Both DEQ and the Department of Game and Inland Fisheries, we have been receiving those reports, and actually I think can be identified one of the better score fisheries in the state.

With regard to other permits, many permits throughout the country and Virginia use heat rejection limits. Many permits use a maximum temperature limits. The shortage that the permit writers have, and that shortage is going to depend upon the type of, the specific case the size of the discharge, the size of the receiving stream, whatever that other factor may be found, but both methods are just fine and being reviewed.

Now I would ask the Board with regard to the new DEQ staff. I have been working with the Health Department have been consulting with them, their position and obtaining advice from them, and this is not a new issue. This was first discussed and explored back in 1980, when we wanted to do that at that time. The fact that the amoeba discredited I don't think comes as a surprise, either to us and DEQ or the Health Department. The organism is liquidus **** elevated temperature be elevated to I think elevated population of the amoeba. In consultation with the Health

Department, it is still a relative risk is small.

Most terms, the major terms that I brought to you, after Roman III, EPA Region III for their review and approval before we can proceed with that. Their particular permit went to Region III on three different occasions, March '06, June '07, and again most recently here in September. EPA asked for a last review to review the comments that were received from the comment period, and they wanted to review it once more. Their response is part of the Board's packet that we provided to you. On each occasion, they have approved that the permit does protect our water quality standards and that the permit is in conformance with all applicable regulations.

Here, I'll read for a moment, it is applicable here. It saves whiting out, (comma)Cindy is passing them out. I need to point them out to you there allow minor, but nonetheless there are mistakes in the packet. First I want to update two typos that we have on Page 17 and 18. The Outfall numbers, I have highlighted being clarification and application date something our chief along the outfall fact sheet, representing one of the outfalls, saying it represented a sampling could be used I want to be sure you are aware of that. Those are the changes that we have made to

present to your **** packet.

That concludes my critique overview. I will take questions at this time. There are a lot of people who have indicated they wish to speak on this. Mr. Thompson, a public hearing was held July 18th, Mr. Thompson was the hearing officer at this point. He may want to make some observations.

MR. THOMPSON: My observation is that there were a lot of well informed, thoughtful comments made at the public hearing. It's interesting that they came out about 50/50 in terms of numerical count. I think there is a problem I had, and I think others will have, keeping straight whether we are talking about the conditions in the Waste Heat Treatment Facility, that is the cooling lagoons as opposed to the lake. I want to ask you one question because I'm still not clear in my own mind.

One, Outfall 101 is the discharge from the cooling lagoon to the lake. Correct?

MR. FAHA: Outfall 001 --

MR. THOMPSON: 001.

MR. FAHA: Is the discharge from the cooling lagoon to the lake.

MR. THOMPSON: And that's where you indicated that the temperature is cooling that area around that

outfall and the rest of the lake only.

MR. FAHA: That is correct. Mike, get my plat here. Make sure you understand.

MR. THOMPSON: Down here at the bottom.

MR. FAHA: Down here where I have the cursor. That's where the water temperature is going to be 32 degrees. Up here, is the discharge from the lagoon. That's where the water is going to be the hottest. And there, the output during the months of July and August but right in, right there, during July and August, the temperature is going to be 104 to 105 degrees.

MR. THOMPSON: In the first lagoon?

MR. FAHA: Right there. There's the discharge water right there. This is where the water is going to be the hottest and the air is going to be roughly 14 degrees warmer than the lake where the water is taken in, 14 degree number to use. The water is heated 14 degrees, 14 degrees more than goes through the plant.

MR. THOMPSON: And the heat rejection limit is calculated as of which one?

MR. FAHA: It's actually calculated at the plant. It's, as I said, it's a calculation design parameter in terms of waste heat. It's just that. This is heat that was not used to generate electricity. So it's termed waste heat. And it is a design make that

number as small as possible to try to convert parameter and wear power. I was trying to convert that heat to electricity.

MR. THOMPSON: I will get to that in a minute.

MR. FAHA: All right.

MR. THOMPSON: So the heat rejection is what is being rejected into the canal.

MR. FAHA: That is correct. Yes.

MR. THOMPSON: Do we know what the heat rejection is into the lake, or are we assuming it's the same?

MR. FAHA: No, we don't. We don't know what the total additional heat is returning into the lake.

MR. THOMPSON: It is assumed to be less.

MR. FAHA: Right. The flow volume permit, heat projection permit, any heat projection where you would be loading in a sewage treatment plant, concentration and loading, volume is what connects the two. Same thing here. Take out the concentration think of temperature, delta temperature. So if you have a very small delta temperature, and a very large flow, you are going to get heat rejection. If you want to be more familiar. If you have a low concentration, high flow, you get a large loading. You have a high concentration and low flow, you get a large loading. Delta

temperature, if you have small delta feed, large flow, you get a large heat injection. If you have a high temperature delta low --

MR. THOMPSON: You also have heat dissipation in the Waste Heat Treatment Facility.

MR. FAHA: That's the idea, yes.

MR. THOMPSON: But the interesting piece to me is that we got, you correct me if my arithmetic is wrong, but we were talking about dumping waste heat to the extent of 13 billion BTUs an hour?

MR. FAHA: That's not this. 13.50 BTUs per hour. Per hour.

MR. THOMPSON: This has nothing to do with whether this permit ought to granted or not, but I attended a conference last week on energy and sustainability. And we listened to come real good advice from Virginia Power on how to efficiently use our energy and save energy. But we also heard that this power that is being generated, the conversion rate is somewhere around 30 to 40 per cent. Back when I was in school, power was, that was over forty years ago, they were generating power at that conversion rate, roughly; and I know that we have got energy at a low temperature, water below temperature is more complicated and more involved to extract that energy in useful form. This is

waste energy we are talking about. And I just thought that ought to be on the table that, that is an issue that needs to be considered, particularly with two more years up there. They are going to worry about how to use that waste energy some useful way, perhaps. Again, I thank you.

CHAIRMAN MILES: Mr. Kiser. I think it's time to hear from some other folks.

MR. KISER: I can hold my comments until after the public, if you wish. I do have a couple of questions.

CHAIRMAN MILES: Questions are certainly appropriate now.

MR. KISER: On the hand-out, Page 6 Variance and other temperature limits, and on 8 through 16(a) variance, put temperature limits on the discharge. On down on 8, staff response permit caps amount of heat Dominion can discharge. Am I missing something in there?

CHAIRMAN MILES: I'm going to try and do this by --

MR. KISER: Then I have one more after you do that. On Page 7, U. S. Federal Regulations. What are we, are we just taking that out of context what they are

doing, and adding this to ours?

MR. FAHA: Yes. Real low heat. Question. First it's a difference between temperature versus heat load. If I could, I'm trying to do an analysis, I have been practicing with my kids, see if I can do this. If you have two pots of water, two pots of water, and you have your stove, you put the two pots of water on the stove at the same time, one pot though you filled up with water at 80 degrees; the other pot you filled up with water at 40 degrees. You put both pots on the stove for one minute, then you take them off. You added the same amount of heat to both pots, but the hotter one is going to be 81/82 degrees; the other pot is going to be 41/42 degrees. You added the same amount of heat, but they are still at two different temperatures. That's what we are trying to do here. If the water enters the plant at 60 degrees at the intake, it is going to exit the plant at about 74 degrees. If the water enters the plant at 80 degrees, it's going to exit the plant at 94 degrees. In both cases you added the same amount of heat. What is really the driving factor on the final temperature was the initial temperature. What was the temperature of the water at the entering point? That is the difference between the heat rejection, amount of heat they are allowed to reject

versus using the maximum temperature. Does that help?

MR. MCKENNEY: No.

MR. KISER: I get that part of it. You are saying that in the winter time it did do the temperature is the difference?

MR. FAHA: Whether it's winter or summer, temperature coming out of the plant is going to be 14 degrees warmer than the water that enters the plant.

MR. KISER: Water entering in the winter should be --

MR. FAHA: Water that returns back to the lake again, whether it's winter or summer, is going to be two to three degrees different than, warmer than the lake water.

CHAIRMAN MILES: May I interject to your clarification and ask the question I have. I thought I heard you say during the presentation that the water near the outfall was 2 degrees difference. Are we actually talking about the temperature of the effluent, or are we talking about within the mixing zone around the outfall, and the 2 degrees, and I assume all the way through, you haven't really said this, but I guess we are talking about degrees Fahrenheit.

MR. FAHA: I was going back and forth, and I apologize. The 2 or 3 degrees is Celsius 14 degrees

actually calculation in Fahrenheit. I apologize. Down here at the outfall, this is where the Delta is about 14 degrees Fahrenheit. Right here. The out flowing. The return back to the lake is about two to three degrees Celsius which would be about 4 to 5 degrees Fahrenheit.

CHAIRMAN MILES: But to clarify. Are you talking about the lake in that area is 2 degrees Celsius or the actual effluent going into the lake is 2 degrees Celsius?

MR. FAHA: The effluent going in to the lake.

MR. FAHA: And Dominion has monitoring locations throughout the lake as well as upstream, in the upper arms of the lake, as well. Areas there aren't affected by the discharge.

CHAIRMAN MILES: That's where you say the --

MR. FAHA: The monitoring stations are in the western part of the lake. Actually the temperatures are very similar. You have no effluent during the summer because the temperature is going to be up into the 90s Fahrenheit.

CHAIRMAN MILES: What are the temperatures near the outfall?

MR. FAHA: I'm not sure I can give you those. What this shows is the areas monitoring locations that Dominion maintains, and has maintained since the '80s.

And look to the extreme months, February and August, the last two years. And if you take a look down here in the lower right-hand corner, it says NAWHTF3, that's the temperature of the water as it is about to leave the Waste Heat Treatment Facility and enters into the lake. And you can see the air there is about 93 degrees Fahrenheit. If you take a look up in the left-hand corner, in the upper left-hand corner, you see areas of the lake, and these are the areas that are unaffected by the discharge. August temperature in there is running about 80 degrees. 86/87 degrees.

MS. JAIN: But the temperatures that you are talking about are a variety of other factors. Correct? I mean depth of the water --

MR. FAHA: That's what we are trying to depict here.

MS. JAIN: If you look at the, compare February to August, if you look at the temperatures in February, whether it's in the area of the lake that are affected by the discharge or whether areas of the lake that are not affected, you see roughly a 20 degree Celsius change difference. Dominion is adding the same amount of heat today in February, that it is adding in August. You can see the whole system, though, is really subject to meteorlogical condition, solar radiation. Actually the

initial work that went into this imaginarily by MIT, Massachusetts Technology modeling and so forth, throughout that, during the summer months Dominion would only be adding 10 per cent. 90 per cent of the temperature of the lake is still going to be subject to meteorlogical condition. We have a long hot summer, dry summer, you are going to elevated temperatures in various areas of the lake.

CHAIRMAN MILES: I interrupted your response. If you remember the question, feel free --

MR. KISER: You are saying the depth is 70 to 100 feet. What would adding to the plant do? Are we going as to have to raise the temperature permits?

MR. FAHA: If the lake naturally gets warmer and warmer, you see droughts, solar radiation, and so forth. With the decided effort, the studies that we have, we are making them and continue to do, this is driving just that point. At what point might we see the Delta in the lower right-hand corner, at what point might we see that Delta temperature begin to impact the biological community of the lake? That's really the driving force behind continuing with the survey.

MR. KISER: What do you do if it does?

MR. FAHA: It's not going to be, I don't want to say, it's not going to be easy to actually have an

identified temperature as the sole issue; so what we will do is really what was done initially in the 1980s, when the 316(a) studies were done. We will convene national experts specifically to process and assist and analyze to determine whether or not, right now DEQ and DGIS to help us determine are we seeing any kind of impaired fishery. Today we are not.

MR. KISER: Going back to the Federal, if they are going to regulate, why should we, except make sure they do it right?

MR. FAHA: My answer in a general sense already our regulations, our permit regulations mimic very closely the federal regulations for the federal regs have ****federal regulations and now NPDES regulations. Our NPDES regulations mimics that very closely in many areas word for word. We do have a difference, though, in definition. Our definition of surface waters is akin to their definition of U. S. waters, waters of the United States. And in that definition we have a difference, a slight difference with regards to treatment facilities. And how they are, how they are treated like for us. EPA permits. And as you saw, EPA's response, their September response what they addressed directly pointing out even within their own definition to some similar area how they will consider

facilities such as this. Their consensus was more -- There is nothing wrong with what Virginia is doing. Thank you, Mr. President.

CHAIRMAN MILES: Other questions?

MR. THOMPSON: You indicated the amoeba in lower amount, assuming that there was a serious health threat, in the opinion of yourself and the Health Department, what would be able to do about that?

MR. FAHA: We would work with Dominion in the use of the facility. Right now we are really down to agreements between the land owners around the area and Dominion. And we would consult with the Health Department and act accordingly.

MR. THOMPSON: Do we have the power, in your view, to address that issue in a permit? For the waste treatment.

MR. FAHA: This is one of the reasons why we went to the Attorney General for his opinion as to just what can we do. We would certainly work with both entities, make sure that we thought there was a human health risk here. We would certainly meet with Dominion.

MR. THOMPSON: Maybe I should address the question to the Attorney General. Do we have the power to limit their water discharge based into the Waste Heat

Treatment Facility? Upon the finding by us or the Health Department that there is a health risk?

MR. ALBISTON: It's not, the health concerns are one of the concerns in the regulations. The Clean Water Act could be used as a consideration.

MR. THOMPSON: I thought we were powerless to regulate those Waste Heat Treatment Facilities.

MR. ALBISTON: I'm sorry. The question I thought you have asked me was the actual discharge from the Waste Heat Treatment.

MR. THOMPSON: No. I'm talking about, that's where I understand that's where you meet the horrors in the cooling lagoons of the Waste Heat Treatment Facility.

MR. FAHA: Both bodies of water where the waters are warmest, is where you can expect an elevated risk, where you can expect, (comma)the highest concentration.

MR. THOMPSON: Which are we dealing with? The report, was that in the lake or in the waste?

MR. FAHA: Actually we determine the permit, the risk, in the main water. The State DEQ with the Health Department, do not consider the risk to be --

MR. THOMPSON: I understand that. Where were they identified? Was that within the lake or the waste

treatment?

MR. FAHA: Through that, we have in both --

MS. BERNDT: According to the information we got.

MR. THOMPSON: An equal concentration or was it higher? I guess what I'm trying to find out is whether even if it were determined to be a health hazard in the Waste Heat Treatment Facility, do we have the power to address it in that permit?

MR. FAHA: I think, if I may --

MR. THOMPSON: My understanding, I don't believe we do.

MR. FAHA: To finish my comment. I don't believe we do. It's still exempted. That is a cooling lagoon under the regulations. It is not subject to regulation for either health concerns or any other; now, as far as the lake in general, it is.

CHAIRMAN MILES: Follow up question to that. I have a feeling he's going to line up with both of you. What other treatment facilities permitted by the Water Board have people recreating in them besides Waste Heat Treatment Facilities?

MR. FAHA: That's it.

CHAIRMAN MILES: That's it?

MR. FAHA: That certain question. This is

really serving the Northern region, is it? We don't obviously, if I may, other treatment facilities, one of the common uses is the social lagoons. We don't regulate the quality of water entering into those lagoons. But we are not about to allow a facility to allow people to have access to those treatment lagoons. Here, the agency is well aware that the facility is used for recreation to date in order, in our judgment that there is no need for us to intervene between their agreement that exists between Dominion and the people who have access to it.

CHAIRMAN MILES: The follow up question then, but the Attorney General, if we did determine that there was a public health risk on the treatment facility part of Lake Anna, and our remedy could be to write in the permit restriction if the excess for recreation to that part of the facility. True or false?

MR. ALBISTON: I'm still not sure exactly the question. You state and I hope this answers it, is that the Waste Heat Treatment Facility side, also called the hot side, is not subject to regulation, and that is for any existing permit consideration, including the health consideration and the heat consideration.

CHAIRMAN MILES: I'm not addressing that consideration. I'm addressing the consideration access

to the public theory if we have exercised that option, would that be the EPS permits? I heard them say we would under no condition allow the local Boy Scout Troop to be fishing in a sewage treatment facility. We have a similar option here, or more than one, or is that an option,is that the only option?

MR. ALBISTON: Again, are you talking about on a lagoon that is a fishing facility?

CHAIRMAN MILES: A sewage facility, period. This is a sewage facility. It is now labeled a Waste Heat Treatment Facility. That's the rationale under which we are limited in our regulations upon Dominion in terms of what goes in that facility from their operating point of view.

Mr. Faha, would you like to take a stab at the question?

MR. FAHA: I would like to give you an example. On our inspections throughout, talking about sewage treatment plants. We see evidence of kids have been on site, we are very quick to point out that cannot be. Then we see other kids on oil-water separating itself, and so forth, is not secure. You know. We do say there has got to be some security around this treatment unit. This is not something we want people to have access to. So, if I may, the Attorney General's opinion in terms of

us being able to put limits, quality limits into that facility, we are restricted from it. But do we have maintain regulatory ability to put operational controls over it, yes. I think we do. In my experience we do.

CHAIRMAN MILES: Mr. Albutein, do you have another comment?

MR. ALBISTON: Yes. As comment, as far as the restriction regulation of Waste Heat Treatment Facility, one of the health concerns, again I stick to the original opinion the Attorney General, that they had no, there is no recorded regulated **** as far as health concern, certainly the Department of Health in its regulation might have options as far as restricting access to public health concerns related to heat or bacterial concerns. There is no one in the Attorney General's office able to speak to that issue regarding health regulations. But as far as within the parameters of this Board and the regulations we stick to our original analysis.

CHAIRMAN MILES: I would like to hear from other members of the agencies now. Mr. Nelson Daniel. He may be able to provide some additional comments on the part of the health aspects of their regulations.

MR. DANIEL: May it please the Board, I am Nelson Daniel, counsel for the Department of Health.

The Health Department obviously doesn't exercise regulations over treatment facilities or lake. The Health Department, (comma)as health commissions and the Board of Health, have authority to draft public health emergencies, in some cases toxic substances. Amoeba, I believe, calls for definition of toxic substances very permanently, and in that capacity could react to a public health concern, or public health emergency caused by this. I don't see that they necessarily have the ability to be proactive in this. We believe that may be, and to do something to somehow regulate the menu. I think their authority is to be of public assistance around the lake, and reacting to conditions that would occur later.

CHAIRMAN MILES: Thank you. Mr. Faha, would you like to offer and comments by way of answering the question?

MR. FAHA: I'm a bit perplexed as to why we, the permitting authority, can say the public cannot have access to a sewage treatment facility but we precluded from taking the same active position to protect the public health and welfare at a Waste Heat Treatment Facility. Theoretically. I'm speaking theoretically.

CHAIRMAN MILES: I may have to turn my question to Mr. Albiston as to whether or not we have the

authority to prohibit direct access; but it is my understanding of the discussions that I have had with the attorneys and so forth, that we don't have the authority on the warm side to set specific temperature limits and so forth. So, if we were then to discover that there were, that there was a public health concern because those temperatures were higher than should be used for recreation, we would turn to the Health Department for advice and the question of whether or not we could restrict access, we, in fact, might be able to, but I'm confident that if the Health Department were to make a determination that there's a public health risk there, that between us and the Health Department, we'd figure out who had the authority to protect the public.

MR. ALBISTON: And it would get done.

CHAIRMAN MILES: And it would get done.

MR. THOMPSON: Mr. Chairman, Dr. Burns from the Health Department is here. Maybe you would like to ask him the question specific.

CHAIRMAN MILES: That was a more general question, actually. I expect there will be specific questions to him about the amoeba.

MR. KISER: One more. Why not run it through the lagoon rather than put it back in the lake? Wouldn't that go through the sewer system and control it

that way, then control it as waste water?

MR. FAHA: Well, to start, it's cooling water. The only thing is temperature.

MR. KISER: The reason I'm asking, they are going to do that with the other facilities that they are building.

MR. FAHA: The other is volume. The volume here is -- The District of Columbia, which serves parts of Fairfax, all of Washington, D.C, and much of Maryland, the volume of flow at Blue Plains is only 350 million gallons per day. The volume of water here is over two billion gallons a day. The idea of channeling through the sewage treatment plant --

MR. KISER: You are handling that much water each day?

MR. FAHA: From which, the cooling water, yes. That is a huge volume of water.

MR. KISER: Okay. I didn't realize that.

MR. FAHA: Yes. Much larger than you are accustomed to seeing the staff bring to you.?

MR. KISER: Okay. Thank you.

CHAIRMAN MILES: Mr. Thompson, I think you had asked your questions. Mr. Walker, I think I spotted questions all the way down. I'm just going to work, go right down the line. If you have a question to follow

up that is on point, interject, but otherwise we will take them as they come. You were through, Mr. Thompson?

MR. THOMPSON: No, I just have one follow up. The Attorney General and the Health Department is still on crock. What would be the nature of the action that the Health Department could take, technically, if it were determined that the amoeba population did create a hazard?

UNKNOWN SPEAKER: Why don't we let the Health Department speak?

DR. BURNS: I'm Dr. Jim Burns. I am chief of, (comma)Health Department. As I understand, Commissioner Hough has powers, most powers in the state other than the government. He has broad power if there is a public health emergency. We deal with situations frequently where our authority is not clear, except that we have complete authority within the public health issues. So in a situation like this, if there were some ongoing transmission la various, so if there were something other than just an incidental case, if we were convinced that there was a problem, we would do what we normally do, we would contact Dominion, and contact the citizens group, see if we could work something out. After that, the Commissioner will issue an order, I'm not sure what

the order would say, it would either exclude the activity that was creating the risk, whether the acidity was water skiing, or swimming, or it may have to go so far as to limit the heat, the temperature of the lake. It would just depend on the circumstances. We would not stand by and see people face a risk by something we could control without doing something about it.

CHAIRMAN MILES: Any other questions while he's up?

MR. MCKENNEY: Yes, sir. The whole notion of what constitutes a public health risk, would that be determined because individuals were sick, or based upon taking the amoebas in the back area you were testing for, the concentration of amoeba that was unacceptable for public usage?

DR. BURNS: While not surprising, that does get complicated. But generally --

MR. MCKENNEY: What doesn't here?

DR. BURNS: Generally we are dealing with an actual risk, an actual event.

MR. MCKENNEY: Someone sick.

DR. BURNS: Right. We are dealing with, the scenario would be the second person who got Naegleria. Like one person is not that unexpected. We get about two cases a year nationwide of Naegleria. So some day

we are going to be unlucky, and it is going to happen in this lake. Given one hundred years, or many years, it will happen. So that's expected. The second case, especially if it was in the same summer that would not be expected. That would be what would trigger us to do something about it. Measuring a particular concentration would not trigger action, because we already know there's a very conveniently and coincidentally there's a very nice relationship between water temperature and Naegleria concentration. It's like it's on the locked step. You can easily control the relative risk of Naegleria exposure by determining what temperature you are willing to accept. So, for example, below 95 degrees, the risk is pretty much background. Above 95, 95 to 104, the risk does start going in at 104 we think the risk is unacceptable. But, coincidentally that's an unacceptable risk from the heat level, just like the nuclear facility has waste heat in the **** heat. We are aware emersed in water **** which would be about 95 degrees. We are no longer able to get rid of heat except ****water, and that's a pretty efficient radiator, and after taxes, when those temperatures are up to 104, unless we are exercising rather vigorously, but above 104 we really can't get rid of heat and that part **** safety commission has fast

limit ****. So the fact that Dominion is posting this water temperature allows the citizens by looking at the temperature, get a pretty good idea what the Naegleria concentration is, other things being equal. Some years up or down to 104 degrees, you wouldn't have Naegleria; some years at 104 you would. But on average, you are going to have more Naegleria at 104, than you would have at 95, than you can have at 85.

MR. MCKENNEY: So the Health Department has, while Dominion is supposed to, actually the Health Department has no role in intervening at certain temperature to provide notice about access or any active enlisted determination that there is a public health risk.

DR. BURNS: Correct. We don't have any regulatory rule in especially this kind of industrial facility. But we do have an obligation to the citizens to inform them of this risk. There are other places in Virginia where summer water temperatures can get to 95. And so people need to understand that that is both a thermal risk and a very small Naegleria risk.

MR. MCKENNEY: Thank you.

CHAIRMAN MILES: Question?

MR. WALKER: Does the Health Department currently have any protocol to require testing for

organisms like this in areas that could be prone to have an outbreak or bloom?

DR. BURNS: No. Especially since we have such a good population of the temperature, it would be, from our perspective at this point, we accept that if the temperature is 104, Naegleria risk and temperature risk are unacceptable, as it's not something we test for. We are testing for bacteriological risk in recreational waters, reduce other indicated organisms like e. coli, which doesn't track this, because e. coli come from a difference source. Naegleria is a pretty living organism.

It's presence in the environment, starting in the environment, when the water temperature goes up, it does competitive damage to other organisms and has a high concentration. But this is kind of an unusual situation, not something we regulate.

MR. WALKER: So currently you don't have any mandate that would allow you to require testing say during July and August when there is potential.

DR. BURNS: I would assume not. We are aware of one country that has a standard. France is the only one that we know of that has a recreational water standard for Naegleria.

CHAIRMAN MILES: Any other questions of the

Health Department? Dr, Burns, thank you. Now you may sit down.

MR. WALKER: Yes. One question relative to the heat rejection limit. You spoke of many other permits that use this limit. Could you give us a couple of examples, please?

DR. BURNS: Heat rejection limits?

MR. WALKER: Yes, sir.

DR. BURNS: **** Northern **** Prince William County, Possum Point, Chesapeake, and the Surry plant. There are also many plants here in Virginia that use heat rejection limits **** EPA's letter, didn't study national EPA makes reference to the fact that it's used throughout the country in other states use heat rejection limits.

MR. WALKER: Even though it's not in front of us today, do you think it would be 316 variance and heat rejection limit would apply to potential expansion in Lake Anna?

DR. BURNS: Repeat the rejection limits again?

MR. WALKER: 316, would that apply to standing facilities in Lake Anna?

DR. BURNS: Sure. Yes. The heat rejection limits and variance are instinctively linked, 1986, they are linked. They are one together. The variance says

that heat rejection limit is protective of the biology of the lake. Dominion wants to come in with another unit and so forth, and say increase the heat rejection limit. We would say, (A) you have to modify the permit, and (B), you have to demonstrate to us through another 316(a) study, to show that that new heat rejection limit is going to be protective of the biology. Absent that, we would use the generic temperature criteria.

CHAIRMAN MILES: Any other questions, Mr. Walker?

MR. WALKER: Question about the temperature data sheet, which you circulated in response to the question that I raised when Mr. Kiser raised the question: That is labeled Monthly Mean Value. What are Maximum Values? Do you know?

DR. BURNS: Maximum Value? The dates in the fact sheet? (Going through papers) Chapter 11, five pages. We reported both the maximum temperatures and hourly means. These are hourly means. The one that you focus on is in yellow. The highest temperature. I'm looking at that last page, page five. '06, July/August '06. The maximum temperature I see for July '06 for NBC treatment facility is a certain void, to your right.

CHAIRMAN MILES: I didn't hear the last sentence that you said, actually. Come forward to talk.

(Chairman and speaker confer privately)

MR. WALKER: Follow up question, a different question, not really a follow up. In turning to that, I lost my place. EPA in their response identified the final, in the next to the last paragraph, EPA recommends to evaluate the temperature biological data mid-term. Virginia DEQ considers whether a temperature base limit in the next permit might provide additional assurance thermal discharge from the North Anna plant do not adversely affect aquatic life in receiving waters. Do you have any comment on that recommendation from EPA?

MR. FAHA: Yes. (Unable to understand) **** everybody, we would do that. That's inherent to the studies that we are requiring. Those studies are also a monitoring table, the collective, Dominion has to collect all that temperature data. That data in conjunction with the biological surveys that are being done; all inherent to us, just that. Is there a maximum temperature that we need to be paying attention to, (comma)That's where we might see the biological community in some sort of stress ****. So then I have had discussions with my counselors in Philadelphia, and we know this really is part and parcel, what they wrote there is really part and parcel to that study. And I think it's fair to say, I think it's fair to say that

not too many permits really require what we are requiring, monitoring affluent discharge permits into cooling waters require what this one is doing, is really verifying, constantly verifying the 316, the initial 316(a) studies. As I said, this permit did not contain this condition in its previous version, which we feel is necessary, and inherent ****.

MR. WALKER: Is it safe to say that although this current permit recommendation, which I'm assuming will be forthcoming after a period of robust discussion, does not contain a temperature base limit that the process which is envisioned in the future, we probably will get to a temperature base limit?

MR. FAHA: No. I would say that we will probably get to it. We will always have that ability if we so choose, but right now the heat rejection limit is a fair and appropriate limit; and we are not seeing any impairment. One of the risks of putting in a maximum temperature limit, that's not the correct word, risk, the consequences of a maximum temperature limit would be that if we do have a very long, hot, dry summer and so forth, and the lake level, you know, rises in temperature again, thereby causing the temperature of the lake to exceed whatever number we so thought was correct. The facility would have to power down or

something along that nature. Without us necessarily having a biological basis for that maximum temperature. And the root of the whole 316(a) variance, that whole process really is to allow a permittee to site specific information rather than a generic temperature criteria. So again, I will say the staff is going to do what is necessary to protect the biology of the lake. And through these studies, we come to the conclusion that a maximum temperature is depleting the biology and which shows the lake to the power plant, then we will act accordingly in response to it and use a maximum temperature. Your question would we probably? I don't want to forecast any expectations that we are going to go to a maximum temperature limit on this.

CHAIRMAN MILES: And with respect to an unrelated question, mean annual flow of the North Anna River at the down site?

MR. FAHA: Mean annual flow put it in the neighborhood of 50/60 million gallons a day. Somebody in the audience says no. If you convert it to cubic feet per second, (comma)if you use 40 feet a second as a minimum, 40 feet a second, you calculate that, it is going back to 24 million gallons per day. Going back to compare it to 2 billion gallons. Actually the flow in the lake, actually recirculates, and draws, pulls that

water back from Upper One back to the plant. Far much more water is going through the plant than what is going over the dam.

CHAIRMAN MILES: The remaining flow to the dam in cubic feet per second for the period of record calculated from the gages for the period of record, would be what?

MR. FAHA: Fact sheet 60/70 feet a second mean annual.

CHAIRMAN MILES: Ms. Jain.

MR. FAHA: The mean, the mean is 50 per cent of the flows are higher than 128 cfs, calculate that would be 70 high. 128 cfs.

CHAIRMAN MILES: I don't need to do per day. I'm very much more accustomed thinking per second. That's the median.

MR. FAHA: And that's at the gage station at twenty miles down river, outflow.

CHAIRMAN MILES: That really got my specific question. I will turn it over. Ms. Jain.

MS. JAIN: I need to go through the legal analysis. I don't know whether Mr. Faha wants to answer these questions or let me address them to the Attorney General. But the Clean Water Act references to the term U. S. water. Correct?

MR. FAHA: Yes.

MS. JAIN: Is it defined by statute. What is a U.S. water? Is there a statutory definition?

MR. ALBISTON: In this case it's really a regulatory exclusion of --

MS. JAIN: Yes. I just want to walk through this really carefully. So the Clean Water Act, the Federal Clean Water Act does not define in the U. S. water.

MR. ALBISTON: It is defined by statute. There is also a Virginia statute that says state waters, is different than U. S. Waters.

MS. JAIN: I just wanted **** So the Clean Water Act, U.S. waters, definition, yes or no?

MR. ALBISTON: I'm sorry?

MS. JAIN: Is there a statutory definition under the Federal Clean Water Act and U. S. Waters?

MR. ALBISTON: Yes.

MS. JAIN: And then U.S. EPA came in and further defined it as waters of the United States. Specifically states that waste treatment facilities are excluded.

MR. ALBISTON: Cooling their facilities, excluded treatment, yes.

MS. JAIN: U. S. also does not matter. We have a state statute that refers to U. S. waters.

MR. ALBISTON: Yes. That mirrors that. They are excluded.

MS. JAIN: And then we get the state regulation with our definition of surface water.

MR. ALBISTON: Yes.

MS. JAIN: It includes earth pollution.

MR. ALBISTON: Yes.

MS. JAIN: Okay. So is there an opportunity for any member of the public to petition for a, petition for a ruling to change the state definition of surface waters, when we have what became Federal regulations of Federal statute that also speak on these matters.

MR. ALBISTON: There is always an opportunity for public input to reopen regulation. Of course if the state is going to change, the Commonwealth is going to change its definition, we have to prepare EPA, EPA would she have an opportunity to comment on that.

MS. JAIN: But could we have that disparity? Could we have a definition of surface waters that did not mirror up to the Federal regulations?

MR. ALBISTON: It could, yes.

MS. JAIN: Has there been a concurrent petition for rule making during this permit process?

MR. ALBISTON: There have been some comments received, yes, some comments that the State should

change its definition. But has there been an official, I'm not aware of any formal petition to change that.

MS. JAIN: All right. Thank you. Actually I have one more question. Is there an exemption process under the state regulations? You don't have to go through the change in the rule making, but for this particular instances, there could be an exemption of the particular cooling lagoons from the definition of surface waters.

MR. FAHA: I'm sorry.

Like a recaption table, an exception. I don't know.

MS. JAIN: An exception, yes.

MR. WAYLAND: That's always anonymous.

MS. JAIN: Okay.

MR. WAYLAND: But to be preferred over others --

CHAIRMAN MILES: Always honest answer. Anybody else you want to direct that question to?

MS. JAIN: I saw some nodding heads over here, so I think maybe you have an opinion?

LADY: Not an opinion, just an answer. Yes or no.

UNKNOWN SPEAKER: If I understand your question to be could you, could you by regulations specifically address these and change their categories some way, I

believe that you could do that through the administrative process act, and through this ruling.

MS. JAIN: So it would be through the rule making process act.

UNKNOWN SPEAKER: Through the rule making process. The exclusion under, of this not being surface water is in our regulations, Water Control Board regulations, and so a change to those regulations could be contemplated, and that would be a way that things might change.

CHAIRMAN MILES: That's an opinion.

Mr. Way land.

MR. WAYLAND: Where I'm puzzled and confused, and I have only had a little over a year's experience with state rules and requirements, but there are 14 discharges which are regulated by EPA, not VPDES permits because you have the authority under EPA to address discharges into the waste treatment, waste heat treatment to the warm side of the lake. I guess, I think I have a fairly full understanding of VPDES Clean Water Act as it would pertain to the discharge to the lake, to waters of the state going to the U.S. I'm not quite sure what the controlling statutory standard and requirements are for VPDES permits that are addressing the discharge that go into the waste heat treatment

facility, and why EPA couldn't address some parameters or some issues that can't be addressed under VPDES. We are not saying we were powerless to regulate discharge into the waste heat treatment facility. In fact we have 14 discharges into it and we are regulating those. Therefore, my, may be in the parameters that we can address them, but I am wondering what the EPA authority is and what it might be able to address that would be relevant to discussion we are having. We are not saying anything goes from the lagoon into the heat treatment facility. And therefore we are not saying anything goes even though we are asserting some authority. We have some requirements that we are applying. So why not heat under that authority, why not other measures that might be appropriate to protect public health, leaving aside, you know, whatever biological community might be in the heat treatment facility.

MR. FAHA: That's an interesting question at issue, a fair number EPA permits and so forth. As you were speaking it's encroachment trying to get through where we have used EPA regulations to that. I don't recall any attempt where we used regulations to regulate the waste going into a similar situation. As I'm speaking, I'm trying to think of a scenario where we might employ regulators along those line. It's an

interesting question. I don't know how else, an easier answer would be we wouldn't do that. Specifically, we use our EPA regulations where we don't want a discharge. We want to make sure that the managing facility is such that state waters, surface waters are not receiving pollution that can be managed, so there is no discharge; so this would be quite a deviation for us to do that. I think I may pen, that, so everybody knows, certainly not confusing, if you look at the sewage treatment plant. The sewage treatment plant discharges into the waste heat treatment facility. You will notice that we do have admirable limits on the sewage treatment plant. Technology basis. And we are doing, employing our regulations as we always do. We say regardless of the base line, there is water quality base line and a technology base line. Regardless of the discharge scenario, along with the discharge to the size of the receiving stream. We expect a certain level of treatment to be performed. And you will see that in this permit. We do have several of those internal outfalls that are discharges, (comma)they are going into the Heat Treatment Facility. You have affluent limits. Those limits are in all likelihood technology based to make sure treatment needs are functioning the way they ought to, so that dilution is not going to be used as

treatment.

CHAIRMAN MILES: Any other questions? Any other question, Mr. Wayland?

MR. WAYLAND: Well, I think I understand the answer, and the answer is for certain types of discharges, certain pollutants are going to require a technology base limit. I'm still not completely understanding the distinction between what can be required under EPA and what can be required under VPDES. VPDES is not going to apply in the Waste Heat Treatment Facility. But, EPA can be used as an authority to require modifications to a discharge. So I'm still kind of struggling with why there isn't an authority there that could address in other than just, you know, waste water heat treatment thermal discharges.

MR. THOMPSON: I think the answer may be to the extent that it is available in the Attorney General's opinion, which, like other lawyers, he may be wrong, but I think what it says is that this exclusion is limited to thermal discharges.

MR. WAYLAND: I think the opinion addresses only the authority under VPDES and not the EPA authority. That's why --

MS. JAIN: I agree.

MR. THOMPSON: That's why I'm trying to be very

specific with VD PES. So that's why I'm trying to explore a little bit, since WE ARE regulating other discharges into heat treatment facility, why not, if we were so inclined, I'm not indicating that that's my view; it is not where I'm necessarily headed at this point, it just seems like we are trying to complete the picture what do we do where, and so I think Director Paylor has not had a chance to answer.

CHAIRMAN MILES: Director Paylor has not had any comment.

DIRECTOR PAYLOR: I haven't any comment. And first of all I guess I'd say that probably as far as legal analysis I'm hoping to confer with a few folks and get back to you on that. As a matter of practice, I think Tom hit on it, we don't issue, both have not historically issued both EPA and the VPDES permits. VPDES permit, that regulation was crafted for the purpose of best management practices where they are needed, so that we precluded that they are the successor to our no discharge certificates, where we had a fertilizer facility that was getting, fertilizer was getting into the lake. We required through the EPA best management practices, so that there was no discharge of pollutants to state waters, and that's been the fundamental way that EPA has been used. And so I don't

think I can recall of any instance where we have applied both, because they were for more fundamentally different purposes. Having said that, the legal analysis of that, we might want to get back to you with that.

MR. WAYLAND: In any event, I'm about to trip myself up here, but I'm still struggling as to how we, these are not waters -- the heat treatment facility is not waters of the state. Then what is our authority? If it's not EPA, and it can't be VPDES to establish requirements for the facility sewage treatment plant to discharge into the waste heat treatment facility. And why? And why would the only point at which we could issue a permit, not the access, you know, at outfall here at 001 where I don't think that's where the regulation needs to be at the sewage treatment plant.

MR. FAHA: Correct.

CHAIRMAN MILES: How are we regulating the sewage treatment plant?

MR. FAHA: We are regulating the sewage heat treatment under 133. Federal Regs, secondary treatment. It says: --

MR. WAYLAND: Those are only discharges to waters of the U.S; so these are not waters of the U.S., they are not waters of the state, so it sounds to me as though we have a requirement where we don't have any

authority.

MR. FAHA: In that thought, I apologize, it is certainly our practice, in the alternative here would be that kind of pollution, it could be raw sewage. That's not our mission. And further, the key point to this is that the permittee has accepted these limits. I think they recognize their responsibility. So the question is interesting. I'm not certain we, the staff needs to answer that when drafting the permit. The permittee understands it.

CHAIRMAN MILES: I think that is the key part to the answer. The permittee has accepted those conditions. If they chose not to, then we might be in a bit of a quandary. Under the legal --

MR. WAYLAND: They accepted it as the permit conditions, but if they violated the permit, I really wonder if we have the ability to enforce the conditions that the permit does have ****

CHAIRMAN MILES: If they accepted the enforcement action, that's usually how enforcement action happens around here.

Any other questions of the staff? If not, I expect we will hear from you again.

Ms. Berndt, it's my information for us to take our lunch break. It is almost high noon.

There is another matter. Ms. Jain.

MS. JAIN: The Board would like to move for a closed session. Mr. Chairman, I move that this Board go into closed meeting pursuant to Section 2.2-3711, Paragraph A 7 of the Code of Virginia, for consultation with legal counsel and briefings by staff members pertaining to actual or probable litigation, and consultation with briefing in open meeting would adversely affect the negotiating or litigating posture of the public body, and consultation with legal counsel employed or retained by a public body regarding specific legal matters requiring the provision of legal advice by counsel. Concerning such matters concerning the Captain Cook case. Again this is not a particular matter we would like to discuss ****

CHAIRMAN MILES: Motion by Ms. Jain. Do we have a second?

MR. MCKENNEY: Seconded by Mr. McKenney. It doesn't require a roll call vote at this time. All in favor, let it be known by saying yes.

NOTE: All members of the Board replied yes.

CHAIRMAN MILES: Opposed by saying no.

NOTE: No opposition noted.

CHAIRMAN MILES: And the motion is unanimous.

We are adjourned hopefully until about

1:00 o'clock. That's my goal.

NOTE: Luncheon recess is had while the Board is in closed session. Thereupon the Board reconvenes in open session at 1:00 o'clock, as follows:

CHAIRMAN MILES: The Board has completed its discussions in closed meeting. May I have a motion, please.

MS. JAIN: Mr. Chairman, I hereby move that the Board ended its closed meeting and certifies to the best of each member's knowledge (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting and certification is required, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board.

CHAIRMAN MILES: Do I have a second? Seconded by Mr. McKenney. Roll call vote on this motion.

Mr. Kiser?

MR. KISER: Yes.

CHAIRMAN MILES: Mr. Thompson?

MR. THOMPSON: Yes.

CHAIRMAN MILES: Mr. Walker?

MR. WALKER: Yes.

CHAIRMAN MILES: Ms. Jain?

MS. JAIN: Yes.

CHAIRMAN MILES: Mr. McKenney?

MR. MCKENNEY: Yes.

CHAIRMAN MILES: Mr. Way land?

MR. WAYLAND: Yes.

CHAIRMAN MILES: And the Chair votes yes. Thank you. Before we proceed, let me remind my fellow members that they are free to ask any questions in the open meeting that they asked in the closed meeting.

Hearing none, we are ready to proceed to hear speakers. And we will hear first from the applicant.

MS. BERNDT: Yes, sir. Jud White from Dominion.

MR. WHITE: I was prepared to say good morning, but I will say good afternoon now.

Mr. Chairman and members of the State Water Control Board, my name is Jud White, and I am the Environmental Policy Manager at Dominion Virginia Power. Thank you for the opportunity to speak to you in support of the re-issuance of our North Anna Power Station VPDES permit.

At the outset, I would like to, at the outset I would like to thank the DEQ staff and the management for the many months of hard work that they have devoted to this permit. As you saw this morning,

there has been a lot of effort and work put into it by the staff. Their thorough and thoughtful analysis is reflected in the permit, the fact sheet, and the response to comments.

Since its construction and first operations in 1970, Dominion Virginia Power has operated the North Anna Power Station safely and in an environmentally responsible manner. The Company has adopted policies and practices that serve to protect and enhance surrounding natural resources. We have a long history of partnering with the public and the State in pursuing environmental stewardship projects, for example, the Audubon bird surveys, the Christmas bird counts, volunteer projects at the Lake Anna State Park, installation and maintenance of fish structures, wood duck boxes, and bald cypress tree plantings. We are very proud of the outstanding recreational, fishery and wildlife resources that efforts have produced.

Further, the Lake Anna environmental monitoring programs, that I am very close to, conducted by us in cooperation with DEQ and Virginia Department of Game and Inland Fishery are among the most extensive in Virginia. Monitoring includes water temperatures as well as fish and other biota in both Lake Anna and the Waste Heat Treatment Facility. Temperature monitoring

began in the early 1970s soon after the Lake and Waste Heat Treatment Facility was created and has continued without interruption until the present time. Continuous temperature monitoring at eleven stations in the Lake, and North Anna River, and the Waste Heat Treatment Facility have produced over 4.4 million readings, all of which have been submitted to DEQ. Fish collection studies in Lake Anna, the Waste Heat Treatment Facility, and the North Anna Rive downstream of the dam also continued continuously since the early 1970s. These studies have collected over sixty species of fish at over nineteen sites. The numbers and species of fish for the Lake, the Waste Heat Treatment Facility and the North Anna River are indicative of a stable, diverse and sustainable fish population. Finally, our annual direct observation studies of large and small mouth bass in the North Anna below the dam since 1984 have shown fish populations have remained consistent since these studies began. All of these studies and data have been submitted to DEQ.

Now turning to the draft permit, while most of the conditions in the current permit remain unchanged, the new permit does contain several new enhancements and refinements to the monitoring program at North Anna. There are a couple of these have already

been mentioned by Mr. Faha.

There is a new requirement to monitor flows downstream from the Lake, to provide more accurate measurements of water releases from the dam.

In response to public and agency interest, the fact sheet confirms that Dominion's commitment to voluntarily install a continuous temperature monitor at the end of the discharge canal prior to entrance to the Waste Heat Treatment Facility. And hourly data are now available to the public on real time on our web site.

The draft permit as a condition that the continuous biological monitoring and reporting programs that I mentioned earlier are now required in the permit. An annual report is also required to be submitted on the preceding year by March 31 of each year.

Lastly, a new internal outfall 101 and a new method to calculate heat rejection have been included in the new permit to enhance the reporting of heat rejection from the station. The new method now actually uses temperature and flow data to calculate heat rejection from the station.

While we will be happy to answer any questions that you may have about the history of the

station, the operations, the proposed permit condition, I would like to devote the remainder of my time to three issues that have been raised in the comments on the permit and were discussed this morning as well.

They were addressed the waste heat treatment facility status as a private facility; Limits on the water temperature in the waste heat treatment facility in Lake Anna; and the potential temperature-related risks to the health of those who have access to the Waste Heat Treatment Facility for recreation.

Turning first to the Waste Heat Treatment Facility as a private facility, it is important to understand that both Lake Anna and the Waste Heat Treatment Facility are original and integral components of the station's design. Lake Anna was authorized and created to provide condenser cooling water for the station while the Waste Heat Treatment Facility was authorized, designed and constructed as a treatment facility to cool the heated water before it is returned to Lake Anna. In authorizing the construction of the North Anna dam in the late 1960s, the State Corporation Commission specifically recognized this distinction as did this Board about thirty-five years ago when it issued certificates for the construction and

initial operation of the station.

Between 1968 and '71 the company acquired title to all of the land that eventually would become the bottom and shore of the Waste Heat Treatment Facility up to its highest possible water level. These lands consisted of farms, forests, and small tributaries of the North Anna River. When the company acquired title to the land encompassing these tributaries, it also acquired title to their bottoms and banks as well as the right to control access to the surface of the water above the bottom. This means that the Waste Heat Treatment Facility, like the tributaries that it inundated, was privately owned at the time it was created.

Even though it is privately owned, the company has granted limited rights of access to the Waste Heat Treatment Facility for recreational and agricultural purposes to those owning land adjoining its borders and their guests. However, these right of access has been granted with the express reservation that the company may limit, modify or revoke the owner's right of access if necessary in case of need to preserve the character and maintain the operation of the cooling lagoons as private waste treatment facility. Dominion also requires licenses of those who propose to build

structures on the shore line or bottom of the Waste Heat Treat Facility to prevent interference with the operation of the facility as the station's cooling system and to protect its interests as the owner of the facility.

I want to emphasize that the Waste Heat Treatment Facility is not now, and never has been open to the general public. It has always been managed and operated as a private facility. Unlike Lake Anna, there are no marinas, commercial establishments, public boat ramps or other means of authorized public access to the Waste Heat Treatment Facility.

In addition to its private status, every authorization ever issued by this Board for the construction or the operation of the station has recognized that the Waste Heat Treatment Facility is the cooling system for the station, and not state surface waters. Authorization for the construction and operation of the station issued by the Board in the '60s and '70s classified the Waste Heat Treatment Facility as a treatment facility and not surface waters. This classification was reflected in the first NPDES permit issued in 1977, and has been carried forth through every NPDES permit renewal since then. And as you know, it was spoke to early this morning, the Attorney General

and EPA have recently confirmed this Board's long-standing determination that the Waste Heat Treatment Facility is excluded from regulations as a state surface water.

With respect to now limits on water temperature. I would like to point out a few things with respect to that. Some of those who have submitted comments on the permit have stated that because we have a heat rejection limit rather than a temperature limit, we can increase the water temperature as much as we want. That simply is not true. Increases in water temperature are effectively limited three ways. By the heat rejection limit itself; the station's designed design operating parameters; and our existing 316(a) variance.

The station's VPDES permit has long included a limit on the maximum amount of heat, measured as BTUs per hour, as we talked about earlier, and the station is allowed to release to the Waste Heat Treatment Facility. Expressed as a heat rejection rate, is based on the station's design capabilities. As a consequence, the limit has served, and under the draft permit, would continue to serve absolute limit on the amount of heat that the two units may lawfully discharge.

With respect to the station's design operating parameters it also serves as a limit on water temperatures in Lake Anna. The station has a technical requirement to reduce load to maintain safe operations if the water temperatures at the intake exceeded 95 degrees Fahrenheit.

Now turning to the third issue, the 316(a) variance. Both this Board's regulations and Section 316(a) of the Clean Water Act authorize a variance from outdoor temperature standards where the applicants can make a demonstration that the temperatures are more stringent than necessary to protect a balanced indigenous population of shellfish, fish and wildlife in and on the body of water into which the discharge is made with respect to Section 316(a) of the Clean Water Act. When it became apparent in the early 1980s that the applicable temperature standards in Lake Anna at that time was 90 degrees Fahrenheit; that they were not being met under certain circumstance during periods of high air temperatures in the summer; we requested and received permission from this Board to conduct a study pursuant to the 316(a) to demonstrate that the standards were more stringent than necessary.

The study reflects input from a technical committee consisting of representatives of

federal and state agencies, fisheries and water quality experts, and environmental interests. It demonstrated that the existing cooling water discharge to Lake Anna and the North Anna River supported a healthy aquatic community. Based on the results of the study, this Board granted the variance in 1986. The variance is expressed as the limit on heat rejection rate that I mentioned earlier. Studies conducted by Dominion from '86 to the present show that Lake Anna and the North Anna River downstream of the dam continue to support a healthy aquatic community. As EPA noted in its comments back to DEQ in September, and I quote it: Virginia Department of Environmental Quality has made a well-supported determination that the heat rejection limit remains protective of the balanced indigenous population of Lake Anna.

The company is required to renew the 316(a) variance with each reissuance of the permit based on the results of the biological studies. Accordingly, the variance effectively limits water temperatures in Lake Anna and the North Anna River downstream of the dam. The variance can only be renewed only if the company continues to demonstrate that these waters continue to support a healthy aquatic community.

The third issue, I would like to speak

to, it was discussed a little bit this morning with the potential temperature related risks to the health of those with access to the Waste Heat Treatment Facility.

I want to emphasize that Dominion has no reason, apparently, to believe that the heat released to the Waste Heat Treatment Facility poses a threat to those with access to the facility for recreation. Land owners and their guests have been using the waste Heat Treatment Facility for recreation for more than thirty years, and we are not aware of any reported illness that has been reported to us associated with water temperatures. Further, over twenty years ago, the State Health Department and EPA examined potential health risks at Lake Anna, and I was personally involved in that study, associated with exposure to the amoeba now known as Naegleria fowleri, mentioned this morning, and the Health Department in the early '80s concluded at that time that the risks were very low, so low, in fact, they said the risks of drowning were greater than the risks of infection. We are not aware of any new information which would suggest that the risks are greater now than they were then. In any event, in any event, you may rest assured that as a responsible corporate citizen, Dominion, in cooperation with the Health Department, would act quickly to distribute

appropriate notices both to restrict access as needed if for any reason there was some information to believe there was a adverse health risk.

Further, the State Health Department has the authority to take action in the form of advisories or restrictions on the use of the Waste Heat Treatment Facility. The State Health Department has identified a list of recommended common sense temperature related precautions associated with recreational use of the Waste Heat Treatment Facility.

As I mentioned earlier, Dominion is now providing real-time temperature data on its website, those that are related to Waste Heat Treatment Facilities.

In closing, Dominion believes that the record supports re-issuance of the North Anna permit, VPDES permit with the proposed conditions and we are in agreement with DEQ's staff's conclusions. Comprehensive environmental monitoring programs conducted over many years and the ever increasing number of Lake Anna residents and visitors have demonstrated that the station's operation and Dominion's stewardship have helped to produce one of the best recreational and fishery resources in the state. We therefore urge the Board to approve the permit as written. We look forward

to continuing to work with the Board, the DEQ staff, other resource agencies in the state, and the public to provide reliable electricity to the citizens of Virginia while also insuring that the environment is protected.

Thank you, that concludes my remarks, and I will be happy to answer any questions.

CHAIRMAN MILES: Thank you, Mr. White. Any questions? Mr. Thompson.

MR. THOMPSON: One. Mr. White, I would like you to confirm my arithmetic. 13 times 10 does it not power, isn't that 13 billion?

MR. WHITE: I think that tenth to the ninth is six zeroes, nine zeroes. That is correct.

MR. THOMPSON: 13 billion? And that equates to roughly 50 million lost power?

MR. WHITE: I don't, I can't confirm that. I don't know what the conversion is.

MR. THOMPSON: I think that's right, but I'm not sure. Somebody can correct it. I appreciate it. I did attend the conference in Lexington last week. Did you see me there? I remember seeing you there. A lot of talk, exciting talk about people conserving energy and signing folks the right way. And it did strike me as interesting that, maybe I'm wrong about that, my recollection is when I had the occasion to study a

subject, that the generation of power through a determined process about thirty to forty per cent efficient.

MR. WHITE: You're correct.

MR. THOMPSON: Fifty years ago. And it is still roughly in that same efficiency range. I guess I have to wonder why we have done so many things technologically to improve efficiency, and it has nothing to do with this permit, but it may have something to do with the future. And I was just wondering if there is any work going on serious environmental work trying to improve the efficiency as deemed generated.

MR. WHITE: That is an important question. I will tell you, of course I'm not an engineer, operator, at that plant site, but if it's one word that is in the mind of every engineer at the plant site is efficiency. Because the more we can improve efficiency, the more mega bites we can use for the amount of heat you have to put in. That is absolutely critical. The nature of the business, I assume, I know, I think there has been some improvement, but it may not have been drastic. There may have been. I was quoted recently that it is in the 34 per cent range. And --

MR. THOMPSON: Your president bragged a little

and said it was 40.

MR. WHITE: Did he? But you know, I know that stations and engineers efficiency is of the utmost importance. I think it's by design. The affect of the engineering design of the facility you cannot tweak it but so much, I believe. And that --

MR. THOMPSON: I appreciate you can't increase the present methodology; but if you've got a billion gallons of hot water, let me finish it, you got to do something that can be done with that other than dump it in the Lake.

MR. WHITE: That's an excellent question. I started my career at North Anna and asked those sort of very questions back in the '80s, believe it or not, about the way, there have been several projects in the country that look at the agriculture or greenhouses, or something to use, and my understanding, I haven't researched it in the last number of years, but there was a lot of inefficiencies, a large volume of water with not a whole lot of heat in it, and to really require like greenhouses, require just hundreds of acres to really utilize that kind of energy; so some of that work had been done a couple decades ago, but I know of no new endeavor in the country with respect to the utilization or reuse of waste heat.

MR. THOMPSON: Do you know what I bet? I bet if somebody said you couldn't, I bet you would find something to do with it.

Thank you very much.

MR. WHITE: You are certainly welcome.

CHAIRMAN MILES: Other questions of Mr. White?

MS. JAIN: You mentioned that when the facility was first developed, it was just letting the course of land just set. Can you give me a sense of how many home developments have cropped up since the Waste Water Heat Treatment Facility was created (unable to understand)

MR. WHITE: I don't have the specifics, and I don't know if anybody that is here from Dominion has that as well. Stacy, do you have any --

STACY: I know the County would have that information. There were homes that were there at the very beginning in '72. And it has grown gradually to date. I don't have any statistics.

UNKNOWN SPEAKER: We don't have any statistics either. I'm sure the County would have it.

UNKNOWN SPEAKER: We have it over here.

MR. WHITE: I wouldn't know the answer to that. I'm sure the County would have that information.

UNKNOWN SPEAKER: We have it over here. About eight thousand people live on the warm side.

MS. JAIN: My question is, how many of those individual homes were develop after the plant came into, came on line.

UNKNOWN SPEAKER: I thought eight thousand was the figure over thirty years.

MR. WHITE: Nearly all of them, six thousand were all after.

MS. JAIN: They were all after. That's it at this time.

CHAIRMAN MILES: Any other questions of Mr. White?

MR. WHITE: One thing, if I may. Mr. Chairman, Mr. Thompson questioned about what he thinks. This morning there was a comment about Unit 3. Of course this proceeding is about Unit 22., I just want to clarify that the Unit 3 project, which is a separate, as you know, project, will not add any heat, additional heat to the system. It is a closed cycle cooling system, and we are putting in cooling pumps in Unit 3. No additional heat would be added. I just wanted to make that clarification.

MR. THOMPSON: Where does the water come from?

MR. WHITE: Make up. You have a make up. You take from Lake Anna. You take, there is no where that you need to make up, but you have to make up because you

lose some to the atmosphere. It's a closed cycle cooling system, designed from scratch to be adjacent to the existing units. And we elected to change from the open cycle to the closed cycle for concern for the public, the agencies, and we elected to do that at great expense, but it was the right thing to do. No additional heat will be added. And we will have to demonstrate that (Unable to understand)

CHAIRMAN MILES: Any other questions? Do any of the Board members have for Mr. White?

I just put one to you, Mr. White. It was said earlier this morning. EPA recommendation that in evaluating the temperature and biological data during this permit term the DEQ consider whether a temperature based limit permit might provide additional assurance thermal discharge from the North Anna plant will not adversely affect aquatic life in the receiving waters. Any idea how such a consideration might unfold?

MR. WHITE: Mr. Chairman, that's a good and important question. We, and I take the position that the guidance that we have allows us to comply with the state's water quality standards, which I know you are very well familiar with, the experience we have, is vague in balance indigenous population standard when at the Clean Water Act. And when you start speaking of

numbers, you know, pick a number, what's is it going to be? And we, with all the evidence we have, do we continually revise 316(a) because continually revising the numbers? So I think it is going to be a difficult endeavor, but as Tom said in his morning presentation, we will take a look at it in the next term, and I do think it will be difficult, though. I will, we can deal with that.

THE COURT: Thank you. No other questions? Ready to hear the next speaker.

MS. BERNDT: Mr. Bishop.

MR. BISHOP: I would like for you to remind me of the time limits.

MS. BERNDT: Yes, sir. Comments are not to exceed three minutes, unless there is pooling, and we do have a couple of instances where there is some pooling going on.

MR. BISHOP: First of all I would like to thank the Chairman and Members of the Board for the opportunity make comments before you this afternoon. My name is Wayland Bishop. I'm a citizen of the Commonwealth of Virginia. I live in Spotsylvania County. I own lake front property on the public side of Lake Anna, and have done so since 1983, upon my retirement from the Marine Corps in 1993. My family established

full time residence in Spotsylvania County on Lake Anna. I'm also the president of the Lake Anna Business Partnership. We represent 150 businesses, the owners and operators of which live and work in the Lake Anna District in Spotsylvania, Orange and Louisa County. Our total membership exceeds 450 business owners and operators.

The mission of our organization is to represent the business interest of our business members in the public policies process, as well as to be advocates of the proper economic growth and responsible protection of the environment of the lake.

I would like to share with you my personal experience from 1983. I had the opportunity to purchase property at Lake Anna. There were several pieces of property available for purchase on the private side of the lake, and several on the public side; so I did my homework. And I studied the long term implications of buying property on the private side, and made the decision not to purchase property on the private side for several reasons, although there is tremendous appeal in living on the private side, particularly in view of the fact there is reduced boating activity, and I also knew that I would be fishing and boating and swimming with my neighbors,

rather than people from New Jersey and Maryland. But, nonetheless, I made the decision to purchase property on the public side for two reasons. First of all, I wanted to insure that if the conditions that existed at that time in the cooling lagoons were to change dramatically in the future, and Virginia Dominion Power made the decision to restrict my access to that body of water; that the chances were that they would restrict access before they closed the plant. And in view of that, I recognized that there would be a significant decrease in property value. The second reason was I had no interest in continuing to explain to my mother-in-law why I chose to raise my children, her grandchildren, on Waste Heat Treatment Facility.

I would like to make several points if I could, real quickly. It is the steady opinion of the Board of Directors of the Lake Anna Business Partnership that Virginia Dominion Power is a responsible neighbor and business partner. We consider them to be open, we consider them to be honest, and we consider them to be responsible and responsive. We also are of the opinion that the new permit conditions that have been added to this permit application by the Virginia Department of Environmental Quality imposes a much higher standard for evaluating the risk to public safety and public health,

as addressed by Senator Houck today. So we applaud the work of DEQ in imposing those conditions and the conditions in the permit.

The next point that I would make is that it is my opinion, after some study, that Lake Anna is probably the most monitored body of water in the Commonwealth of Virginia, if not in the United States. And I would like to applaud our sister organization, Lake Anna Civic Association for their participation in working as closely with Virginia Dominion Power and insuring that the quality of water in the environment in Lake Anna is held to very high standards.

We are of the opinion if something were to go afoul, that it would be identified very quickly, particularly in light of the new permit at issue. More importantly we are absolutely confident that Virginia and Dominion Power would react responsively to change those conditions. We are also of the opinion that there does not now exist any real evidence upon which to conclude that there is a real risk to public health and safety either in the main body of Lake Anna or in the Waste Heat Treatment Facility.

And I would also like to mention that you will hear those comments from several organizations who will say they speak for the interest of those people

who live and work at Lake Anna. They have constituencies which require responsible recognition but they do not speak for the entire range of public interest of those people who live on the shore line of Lake Anna. I ask that you keep that in consideration. It is out recommendation, the Board of Directors of the Lake Anna Business Partnership, that you approve the permit.

Thank you very much.

CHAIRMAN MILES: Thank you, Mr. Bishop.

MS. BERNDT: Mr. Van Gelder. David Van Gelder.

MR. VAN GELDER: Mr. Chairman, Members of the Board, thank you for allowing the opportunity to comment on the permit. I represent Hanover County. I would like to speak specifically to the lake level contingency plan, and we are in favor as it exists in the draft permit today.

Hanover is immediately downstream from Lake Anna and relies on the North Anna River as the water source for its Doswell Water Treatment Plant and as the receiving water for its Doswell Waste Water Treatment plant. Further downstream the County relies on the Pamunkey River, as the receiving water for the courthouse and Topectomy Waste Water Treatment Plants.

The North Anna and the Pamunkey Rivers

are also important aquatic resources and recreational amenities for County residents.

Several major businesses in Hanover, including Bear Island Paper Company, Kings Dominion and Doswell Limited Partnership also rely on the North Anna River and tens of millions of dollars have been invested based on the original regulatory mandated minimum lake release of 40 cfs.

Hanover wishes to ensure that the permit conditions provide adequate Lake Anna releases to protect the in stream and off stream beneficial uses of the North Anna and Pamunkey Rivers and thus minimize the adverse affects on water quality, Hanover facilities, its citizens and other users. When the lake was first developed the Commonwealth determined that a minimum release of 40 cfs was necessary for such purposes.

The draft permit Part I Section D, Flow Releases and Lake Level Management is consistent with the action of the Virginia General Assembly, the Virginia Code and the compromise reached by the affected parties when the original Lake Level Contingency Plan was developed. Therefore, at this time, Hanover does not oppose the Flow Releases and Lake Level Management language as provided in the draft permit. Hanover would oppose any changes in the release reduction protocol

which would further restrict the lake release or an increase to the lake level elevation used to trigger implementation of the contingency plan.

Unlike the prior lake reduction, the release reduction this year has been measured, and the downstream flow conditions are lower than those before. Both Bear Island Paper Company and the Doswell Waste Water Treatment Plant have experienced operational challenges which was not the case prior to before.

The river is no longer usable as a recreational amenity. I submitted pictures and I believe you have a package that shows that. The submitted pictures show the North Anna River condition as it is now. Flow in the vicinity of the Doswell Waste Water Plant has dropped to below 10 cfs at times and a weekly river monitoring run has turned into a hike taking several hours longer than normal because there is insufficient flow for a canoe. Any changes of exacerbated river condition cannot be tolerated.

Hanover will reevaluate its position concerning minimum flows and reductions following a review of the data generated by the new river gauge, our experience during this year's reduction, and completion of the IFIM study which is currently underway.

By letter dated August 2, 2007, Hanover

submitted comments to the Department of Environmental Quality regarding this permit reissuance. That comment letter with attachments provided the background for the 40cfs minimum release rate, discussed Hanover's concerns and described the minimal impact of the 20 cfs discharge flow reduction has on the lake level when compared to the evaporation and other water uses. We request the information be considered if any changes to the Lake Anna flow releases are contemplated.

Now I will entertain any questions by the Board.

CHAIRMAN MILES: Are there questions? The document itself referenced studies are pending. When do you think they will be complete and incorporated?

MR. VAN GELDER: The IFIM study, I believe in part of the permit, of the North Anna permit.

CHAIRMAN MILES: The IFIM study is actually a study that the DEQ DGIS was asked to conduct in preparation for Unit 3. Dominion's protocol actually abides by all the work having been done as part of the regulatory commission. Actually done and the day losses DEQ DGIS (cannot understand)

MR. VAN GELDER: We have been invited to attend these meetings, and Bear Island and Virginia Power has invited to participate.

CHAIRMAN MILES: Any other questions? Thank you.

MS. BERNDT: William Blount.

MR. BLOUNT: Mr. Chairman, members of the Board, I appreciate the opportunity to speak today.

I'm a citizen of Lake Anna, and I live on the private side of the lake. I'm a realtor of the lake. I have been there for quite awhile. My family has been there for quite a while. My grandfather sold property to Vepco and Dominion Resources now. My dad built the very first subdivision on the lake, and I continued on with that and built over forty/fifty subdivisions. About one hundred twenty altogether. My daughter, she works for me now at the real estate office, and she also works with Dominion Camp Ground. I am a business owner of the lake. I own Lake Anna Plaza, it's the largest built up family units on the lake on New Bridge Market, a big store up here. Lake Anna Island, the biggest living facility ever approved by Dominion on the lake. (Unable to understand) Other sewage treatment plant on Lake Anna. DEQ and Dominion. All the dealings -- I have had to work with both people and Dominion. All the dealing I have had with both of those people have been very pleasant. Very strict. Very Fair. I have had quite a bit of trust with DEQ

for, you know, watching out for water quality of the lake. lake Anna Island, I believe that's a facility approved Lake Anna Realty on the lake, and I have owned the other sewage treatment on Lake Anna. DEQ and Dominion. I have been with both of those people, have been very pleasant, very strict, very fair. I have had quite a bit of trust with DEQ for, you know, watching out for the water quality of the lake. I have a lot of faith and trust in Dominion Power (unable to understand) Been quite awhile. I would just like to say I definitely would love to see them get the reissuance permit. They are good stewards of the lake. I live on the private side. Contrary to what Mr. Way land said, I'm on the private side (unable to understand) because there is less boat traffic, and it actually is that way. But it is very pleasant. I like the hot water myself. I go out there at night, my wife will jump in the water, it's nice and cool outside, the hot water is real nice. Never had any problems with the water, it's really clear over there, we call the lake three different segments, (comma)Brown at the top where the river is coming in, green in the middle where the bridges are, blue at the bottom of the main lake. And the outside is all clear. So you can see the bottom of the lake,about eight or ten feet deep. The water is actually super clear on that

side. It is really great. I love it over there. That's all I have to say.

If I can, Richard Lukstat was here to speak earlier. He had an emergency and had to leave. And he asked me if I could read his message as well. If there's okay. It will be quick. Lake Anna, since 1985, was asked to speak. He had to leave, and asked me to say that he was here to support the reissuance of the permit to Dominion Power. Thank you. Appreciate it.

MS. BERNDT: Peter DuBois.

MR. DUBOIS: I will be quick, too. I would like to make two quick points tonight about the creation and maintenance of Lake Anna.

First of all my name is Peter Dubois, my wife and I, Linda, bought a home on the lake about five years ago. We live about two miles from the nuclear power plant.

First I would like to commend the vision of the Virginia State Legislature and government officials and those employees of Dominion Power who really had the vision to create an efficient source of nuclear energy for the future of Virginians, while at the same time creating a huge recreation area for Virginians to boat, fish and swim in. I have been that up to five hundred thousand people per year has some

type of recreational activity in the lake.

I would also like to commend Dominion Power for its good judgment in providing an optimum balance in what I consider the symbiotic relationship of running a nuclear power plant, facilitating recreational opportunities, and providing one of the what I consider the largest man-made habitats for fish and wildlife in the state of Virginia.

Lake Anna is like a giant zoo. I remember paying to ride an all day scenic railroad train in West Virginia maybe some of you have done this with the advertised hope of seeing a bald eagle. A few weeks ago I was out on the lake watching the sunset from our pontoon boat, when my grandchildren spotted two bald eagles having their meal on a sandbar close to the power plant. This is just one instance of the abundance of wildlife at the lake from beavers to eagles, fish, frogs, ducks, herons, you name it, and you see it there, and turtles. This wildlife would not be possible without the lake that was created for the purpose of creating nuclear power. For the sake of future generations of Virginians, who will need electricity, recreational opportunities, and would like to preserve wildlife, we should try to show the rest of the country that Virginians can coexist with nature while providing

nuclear power as well as recreational opportunities and habitat for wildlife. Personally, I don't think we want to wait until gasoline if ten dollars per gallon to start planning for future energy requirements. I'm glad that this state hasn't done that.

My second point is when people or organizations, or as a father of six, and grandfather of thirteen, my children and grandchildren do something good, you commend them for it, you give them more responsibility. The biggest mistake in raising children or managing a project is to micro-manage with excessive rules or laws that can have unintended consequences. The micro-management does not allow the flexibility to allow for give and take needed for optimum management of resources. I have with me several articles of environmental damage that have been caused in our forestlands by excessive rules passed by people whose intention was to protect the forest lands and wildlife. Just as officials that overcall a ballgame can ruin the game, so can our environment be damaged if we over regulate and don't allow those charged with managing the resources the flexibility that they need, especially if they have an outstanding record such as Dominion Power has. I ask our regulators that in doing your necessary and important job, that you give those responsible for

this beautiful environment created by the state of Virginia and Dominion Power the flexibility that they need to continue to successfully maintain the balance as they have done in the past.

Attached is my statement and copies of the articles that I mentioned for the public record. One is the position paper from the Chamber of Commerce. And for any regulators or officials that do not have homes on the lake, I would like to give you a precious gift. A paper written and colored by a budding Virginia author, Madeline DuBois, who is a fourth grader from Crossfield Elementary School in Virginia. Since she spends more time at Lake Anna than any of our thirteen other grandchildren, she wrote a paper and pictures of how she loves Lake Anna. Before you decide, please look at this wonderful resource from the eyes of a child, and support Dominion Power in their ability to maintain these resources in optimal balance.

Thank you very much.

MS. BERNDT: John Carroll.

CHAIRMAN MILES: As he is coming, Ms. Berndt, how many speakers do we have?

MS. BERNDT: Five.

CHAIRMAN MILES: Five more?

MS. BERNDT: Yes.

CHAIRMAN MILES: All of you may gather this Chair is always reluctant to cut people off. If you hear beeps, please figure a way to make your main points as quickly as possible. Go ahead.

MR. CARROLL: My name is John Carroll. My family and I have been fortunate enough to live on the high side of Lake Anna for nearly twenty years, we raised three children there, hope to make it my home for the rest of my life; and I am also able to make a good living working locally instead of commuting to Northern Virginia or Richmond every day. All of this is possible because of Dominion's Lake Anna Power Station. Without Dominion we have no lake, far fewer good jobs. Dominion directly provides a vast majority of good jobs in our area. It is indirectly responsible for thousands of other jobs because of the popularity of Lake Anna. Dominion pays over eleven million dollars in taxes directly to Louisa County alone every year, much of which goes to our schools. Because of Lake Anna, Spotsylvania and Louisa County also gives both a huge boost of tax revenues from high value water front homes, many of which is very low income resources because they are weekend homes and not placing their children in schools.

Dominion is also a huge part of our

community. They give money, time, and materials to many local private such as youth source and school systems. Dominion has done a tremendous job regulating Lake Anna. Believe me, nothing goes on at Lake Anna that Dominion doesn't know about. (Cannot understand) Done right many years. They cut it clean and safe for all of us. The waters on the hot side are so healthy, it's difficult to catch game fish because of the huge volume of bait fish that are coming through the water. It's tough to get a strike of shad when millions of real shad swim by at the same time.

In short, Dominion has been a great neighbor. I am going to lend my full support for both continued operation (unable to understand) including a new third reactor.

That being said, some of the things I have heard today, here in chambers, scare the hell out of me. I have heard bantered about either closing the plant, this body, I have heard people say, you know, access to the plant would be denied. Mr. White, from Dominion, said just recently, fine. After all kinds of accommodations he said, you know, the third reactor is not going to raise the temperature of the water. That's the bottom line. You know, plain land safety is never mentioned in the headlines in the newspapers. That

should be the headline. Third reactor will not raise the water temperatures. I'm very grateful for folks, as you, looking out for us. In addition to this body, you have DEQ, Corps of Engineers, Department of Health, Game and Inland Fishery, EPA, the Anarchies, Spotsylvania County, Louisa County, Dominion themselves, I see Mr. Remmers here from Henrico who does their water quality monitoring. Like many people, my home is my biggest asset. My business is also very tied to the lake. And when we came here, I don't think, you know, it's unfortunate,it's tragic, six people in the United States died this year from this amoeba. Really headlines are real easy to be brought up over and over again. Several thousand people, their main asset in life, you know, what they saved for their whole life is tied up in this lake, and I think it can have tragic results on property values. I think Dominion has done a great job. And again, Mr. White commented the third reactor will not raise water temperatures. That should be the bottom line. Anybody that is not on the hot side of Lake Anna, somebody just mentioned they saw a bald eagle there. This year I saw bald eagles, bears, bob cats, beavers, fish, we got it all. It's a beautiful place. I hope not to change it.

Thank you very much for your time.

CHAIRMAN MILES: Thank you.

MS. BERNDT: Harry Ruth.

MR. RUTH: Thank you, Mr. Chairman. I'm not really familiar with this PC here, so I will try to do the best I can. My name is Harry Ruth. I live on Lake Anna. I represent both the Friends of Lake Anna and the Lake Anna Civic Association, (comma)Water Quality Committee. This is a joint alliance presentation of both organizations. During the next fifteen minutes, as we have time allocated for the podium, I'm going to go over the Friends of Lake Anna and Lake Anna Civic Association, have an Overview of Lake Anna; Current water quality problems at Lake Anna; Current and proposed permit; Requested permit changes to protect the public, fish, aquatic life and wildlife; and the requested actions for the State Water Control Board.

The Friends of Lake Anna, we started in September 2005. With reference to high water temperatures exceeding 100 degrees in the lake. We gathered 2,650 petitions to protest the high water temperatures, and that should have been part of the water package that you received for this hearing. In addition, we are not anti-nuclear, nor do we have not-in-my-backyard sentiments.

Lake Anna Civic Association represents

over 3600 persons. And their charter is to preserve Lake Anna, its watersheds as a safe, clean, and beautiful resource through education, advocacy and community involvement.

Both organization support Dominion's nuclear power generating capabilities, and the taxes it pays to both Louisa County and the Commonwealth. We simply want to protect Lake Anna for the half million people that use it, plus the future generations, and the fish, aquatic life and wildlife that share the lake.

The lake has a few interesting things that weren't brought out before, and I would like to go over those with you. There are ten steams that feed into the cooling lagoons. As you can see these over here. Apparently they are called Beaver Goat, Elk Creek, things like that. They were here before the lake was ever created. You also see where the power plant is up there close to the top of the page. The water comes out here and the unique thing about Lake Anna it goes back upstream. 99 per cent of this water recirculates; it does not go over the dam, and as a consequence, the water keeps going around and around and heats up and heats up, primarily during the summer months. I will be coming back to that point in a few minutes.

The lake was created for two purposes

in 1970, both cooling nuclear reactors and the recreation and residential development around the lake, including the major state park, (comma)It is the third largest lake in the state. The cooling lagoons alone are 3400 acres. The land use plan was created back in 1971, called for residential development around the total lake. The VEPCO information brochure, when the lake was created, saying the seventeen miles lake, seventeen long -- seventeen mile lake, with more than two hundred miles of shoreline is complete, we are going to have over two million visitors a year by the year 2000. That was the basis for the whole thing. Now we are in a situation where the main reservoir has Clean Water Act protection, and the cooling lagoons have none.

Last year we had water temperatures exceeding 106 degrees, making it the largest hot tub in the United States because of the 316(a) variance. As I indicated, we have over half a million visitors, eight thousand alone are daily in the cooling lagoons on a summer weekend day.

Ninety-nine per cent of the water RR-circulates, it just gets hotter and hotter. It is a very small watershed and a very small river flow. And normally it would take over two years to fill if the dam broke for any reason.

We do have current water quality problems at the lake. We are concerned about these. The human brain eating NF amoeba was found in both the main reservoir and the cooling lagoons, just within the last three months. Now the Lake Anna Civic Association had a ten thousand dollar study done by the Commonwealth University. Positive results we are finding nine out of sixteen locations, five in the cooling lagoons, four in the main reservoir.

This same amoeba caused six deaths in Florida, Texas and Arizona during this past summer. Dr. Stroube, the Virginia Health Commissioner, says the amoeba proliferates around 86 degrees and thrives especially well at 95 and above. Florida news reports indicates that it really increased risk of human infection when the temperature exceeds 80. Currently we have no water temperature limits in Fahrenheit in the permit at all, which has been explained to you before.

On the 6th of September, the Virginia Department of Game and Inland Fisheries requested DEQ for a claim/mussel survey of the entire lake to be included in this permit, since we had a major clam die-off this year.

The purpose of the survey was to determine the impact of the elevated water temperatures

upon native fresh water mussels, and possible other fresh water endangered endangered species what may be in the lake. DGIF in a quick survey on the 27th of July they found four different mussel types in the lake and they said the water temperatures exceeding 90 degrees can have lethal and sub-lethal affect on fresh water mussels. The survey should be conducted under the DGIF auspices with a state certified malacologist and should be required each two years in the future. As recent as yesterday, I talked to Bryan Watson, who is the state certified malacologist for DGIF. He is still waiting for DEQ to come back and respond to this request that they made back in September. He indicated that that has not occurred. DEQ wants to put it in a letter; but he explained that he doesn't know what they wanted, and he doesn't understand why it can't be put in the permit. Apparently folks in DEQ had said it wasn't in the permit before, so we can't put it in the permit now.

We also have problems with humans can't eat the fish because of high PCB's on the lake. On August 31st the Department of Health cautioned: Don't eat any Lake Anna gizzard shad, and don't eat more than two meals a month of many other different types of fish. The source of the excessive PCB's in the lake is not known and it should be investigated.

We have eight thousand persons who live and recreate on the cooling lagoons that have no U.S. Clean Water Act protection. The cooling lagoons alone constitute the seventh largest lake in the state. Water temperatures last year exceeded 106 degrees Fahrenheit. DEQ says the cooling lagoons are treated similar to a sewage treatment facility. They don't care what goes on inside the cooling lagoons. However, because of the 316(a) variance, that was granted, VDEQ also does not care about what temperature comes out the other end of the main reservoir. They said it's okay for the permit applicant to heat the entire lake to any temperature. Again I repeat, the water goes around and around, ninety-nine per cent of it gets re-circulated. Most major power plants. Nuclear power plants are on a major river or on an ocean and heated water goes flowing downstream. That does not occur in Lake Anna.

They said, VDEQ, if Lake Anna were built today, under current regulations today to be considered today, there would be no question that the cooling lagoons would receive U. S. Clean Water Act protection. And a very restrictive 316(a) variance, if any, would be considered.

VDEQ has no standards when we were looking. When they are looking at the discharge permit,

then the cooling lagoons are not U. S. surface waters. However, when they are issuing a dredge and fill permits for the Corps of Engineers, they are U. S. surface waters.

Other federal, state and local governmental agencies. They treat the cooling lagoons as U. S. public surface waters. Corps of Engineers, as I mentioned, with dredge and fill permits, same criteria as VPDES permits.

Department of Game and Inland Fishery, require a fishing license and enforces boating laws and violation.

DGIF has a public fishing area at Dike 3 where you can fish on both sides of the lake.

DGIF investigates clams and mussel die-offs due to high water temperatures on both sides of the lake.

The Department of Health issues fish consumption advisories--don't eat certain Lake Anna fish.

Louisa County, the sheriff enforces boating laws and county enforces shore line management.

Louisa County and the state have a minimum of thirteen different public access areas off of state roads used for access to the cooling lagoons where

the public routinely fish, swim and picnic at these areas.

If the cooling lagoons are treated dissimilar to a sewage treatment area, then why do all the federal and state, except VDEQ, and local governmental agencies treat them as U. S. public surface waters?

Cooling lagoons has a unique legal status. You heard some of that before here this morning. The Public streams, and I mentioned in the flow in the North Anna River, were inundated when the lake was dammed in '72. The waters in the ten streams are still today regulated by VDEQ as U. S. public waters prior to flowing into the cooling lagoons.

Magically, upon entering the cooling lagoons, these private -- VDEQ treats them as private waters when they are in the cooling lagoons, and views them similar to a sewage treatment facility, although over eight thousand people live and recreate on these waters.

When the ten public streams, the water in there magically gets to Dike 3, then again they are magically transformed into U. S. public waters, then when they enter the main reservoir of the North Anna River.

When VDEQ advised the Virginia Attorney General, and you have a copy of the letter and the opinion, I'm sure, they did not ask: Can the state, what they did ask was: Can the State Control Board impose thermal effluent? As a result, they didn't say anything about dry land, that the ten streams are public trust waters, they didn't say that the cooling lagoons were constructed on dry land, but they are held in trust for the public by the federal government cannot be transferred to a privately owned utility without express provision of the federal government authorizing such a transfer. The ten public streams were not the Commonwealth of Virginia's to give away to a private utility, and corrective action should be taken with this discharge permit.

In August, 2006 the 9th Circuit Court of Appeals ruling, Northern California Riverwatch vs City of Healdsburg, the Court held that a settling pond for a sewage treatment plant was held to be waters of the U. S. even though it was separated from a river by a dike.

The federal court also held that seepage through the dike, analogous to groundwater seepage, was sufficient connection to bring the pond under definition of waters of the U. S. and subject to

the Clean Water Act. This is very similar to the status of the cooling lagoons.

An ex-environmental protection agency law judge, St eve McGuire, had adjudicated many scores of Clean Water Act disputes, said in a July, 2007 letter to VDEQ that he is confident that the correct legal designation of these waters are waters of the U.S.

Generally you said there was going to be a five year review, but why? Many changes to the environment, but very minimal changes to the permit by DEQ.

The proposed permit has the same or less conditions as the previous permit. There have been no major changes made. Only typographical errors and a few other things have been put into it, and many of the previous monitoring and reporting requirements were either reduced or eliminated all together.

Ken Remmers from the Lake Anna Civic association, head of the Water Quality Committee, will go into more details about that a little later on.

VDEQ staff also did not even take one suggestion from the citizen groups and others from the public hearings, comments to provide better protection for the humans, fish, aquatic life. That was one of the prize things that Senator Houck brought up this morning.

How are we going to protect the public health?

Many groups have spent thousands of man hours researching the permit, and offered many recommendations to protect the public, fish, aquatic life et cetera. All were rejected. All were rejected. Why is the public being ignored and discouraged from commenting when you are going to reject everything.

The 316(a) variance permits the applicant to heat the entire lake. They will say the heat rejection limit, oh, that's limited. What they aren't telling you is that ninety-nine per cent of the water recirculates. And on the next go around, it heats up another 3 to 4 degrees. It goes around again, heats up another three or four degrees. That's how we ended up to 106 degrees last year. It just kept getting hotter and hotter. Jud White just told you a little while ago, only when it gets to 95 on the intake, are they going to do anything. By that time it's about 120 on the cooling lagoons. That's where eight thousand people are recreating in.

So, I mean it's a challenge. The summary of the comments that were provided to you, and that we have a copy of also, left out many important references and legal facts that we brought up for you. We will be happy to provide those, if you want. We

would also ask that when you look at this permit, that you establish water temperature limitations in Fahrenheit degrees for the entire lake to reduce public health risk for human brain eating amoeba, and also reduce the lethal effect for fresh water clams and mussels, and aquatic life, fish and the wildlife. And impose some type of penalties if the temperature is exceeded.

The Environmental Protection Agency, as you referred before in some of the discussion has said in their September 21 letter to VDEQ said Lake Anna would normally be subject to a 32 Celsius, 89.6 Fahrenheit, water quality based effluent limitation. Derived from applicable water quality standards. However, because this 316(a) variance was granted in 1986, somehow we got into this heat rejection thing, and now we have a major temperature problem that can exasperate both the amoeba and clams and mussels. As indicated before you have 104 degree temperature limit from the Consumer Protection Agency. There's a problem. We have to put some temperature limits in here. EPA further said, has also indicated, that in the next permit they might provide additional assurance through putting a temperature based limitation in the permit. My question is why can't we do it in this permit? This

permit is going to be good at least for five years.

You heard discussion before that the third reactor will not add any heat to the water, but what they didn't tell you is that it is going to take out twelve and a half million gallons a day of additional evaporation, which is going to reduce the water that we currently have to dissipate the current, which is going to in effect cause the water temperature to rise. Twelve and a half million gallons a day is just going to cause a little problem here. You can go to the Environmental study, you can verify the facts. Eight thousand seven hundred seven gallons a minute.

We would like to see you conduct annual studies in the total lake to determine if the brain eating amoeba, NF, or other, any other dangerous amoeba is present in the total lake and take appropriate action to reduce or eliminate it to where it minimizes the risk to humans, to impose some type of penalties if this is not accomplished.

Determine the souce of CBS in the lake so that those of us that like to fish,can catch a fish, can eat the fish that we catch. This is sort of a no brainer here.

We would like to see, and we support VPIS request, they can put something in that every other

year that studies by a state certified malacologist to determine the presence of all fresh water mussels, including endangered rare species, and take all possible actions to eliminate the lethal and sub-lethal effects to them, and impose penalties if not accomplished.

I went over this slide with VPIS yesterday, and they fully concurred with all this. They don't understand why that can't go into the current permit. Why it has to go into some modern day plan that won't be done.

We ask that the VDEQ change the legal definition of cooling lagoons to waters of the U.S. and correct all appropriate VDEQ regulations referring to them, so all users receive protection of the U. S. Clean Water Act, and that they are not treated as they are living on a sewage treatment facility. Remember, this was designed for two purposes back in 1970. Residential development around the total lake, that's what the legislature approved, and the treating of the cooling lagoons. This wasn't an after-thought that the people came.

We ask you, the Board, to defer any action on the proposed VPDES North Anna permit until the staff has time to make the requested changes to the permit and the public has time to review the changes and

submit comments. And also allow the applicant to operate under the current permit until the above is accomplished.

Thank you for your time. We will take any questions if you have any.

CHAIRMAN MILES: Are there any questions from the Board? Thank you, Mr. Ruth.

MS. BERNDT: Ken Remmers.

MR. REMMERS: Good afternoon. My name is Ken Remmers, and I am representing over 3600 members of the Lake Anna Civic Association. I am the Water Quality Chairman, and as such I head up the water quality measurements taken at Lake Anna. I have over about fifty volunteers that go out four times a year and collect the water samples, send them to the state lab, they are analyzed, and we keep our eye on the water quality of the lake. We are a fully certified by DEQ as a citizen monitoring group to collect Level 3 data.

I would like to first talk to you about the permit today that is up for review for the nuclear power station. I have been working with this permit renewal with DEQ since early 2005, before the July letter came in requesting a renewal. First with Christine Joyce and Tom Faha; then with Jeff Steers, and now Susan Mackert, the permit writer, and Tom Faha, who

is now head of the Northern Virginia Regional Office. Before this renewal, the Valley Office had this permit, and this is the first permit headed up by NVRO.

I would further like to state that LACA's Water Quality Committee is in agreement and supports the issues brought up the Alliance with Friends of Lake Anna on the issues today, I would like to just go in a little more detail about two of them. One of them is temperature limits, the other flow release and lake level management plan.

First of all temperature. 1968 VEPCO came to the same State Water Control Board and presented their request for industrial waste certificate. Back then to support the Clean Water Act, and industrial waste certificates were given out instead of the current VDPES permit. Their letter and their request has many temperatures presented in it, but their most emphasized one states, and I quote: Under most severe conditions, approximated in a summer following a 32 month drought and 4 million kilowatt load, that's with four or five plants running, the temperatures in the reservoir will not exceed 93 degrees in July, except in a localized mixing area adjacent to the outfall of the Waste Heat Treatment Facility,which is around Duke Creek or around Fall 1. And the emphasis on this, that's 4 million

kilowatts, we are only doing half of that or a little less than half of that with our current issuance. And with the issue of the certificate No. 1912, the State Water Control Board put the following conditions in. To quote again: Manufacturing operations and industrial wastes resulting from, therefrom shall be in accordance with the letter and application dated April 8, 1968 by VEPCO. This is their way, the State Water Control Board, enforcing the water temperatures, not to exceed a certain level. And I read this as a temperature constraint in the original Certificate 90 degree with four or five units operating. So the temperature base limits were set then, and I think it is a precedent now so that the State Water Control Board could go back to that and require a permittee to limit the temperature as it enters the reservoir in the permit. Even EPA had suggested this as we heard several times today, that a temperature base limit would be a lot, may provide additional assurance.

I, at times, have sent my water quality groups out and asked them to determine, if they can how many BTUs are coming into the water, and they have trouble. They don't know what it looks like. They don't know how hot it is, and they don't know how to measure. If it was something like temperature or

something like that, we can measure that. This would be in place of BTU limit as is currently proposed in the permit, but would still require a 316(a) variance. You wouldn't be getting away from that, because you wouldn't have temperatures lower than 86.9. In either BTU or temperature based system, real time data should be available to the public so we can see if the plant is doing what it is supposed to be doing. Similar to real time data we are currently getting now for the discharge temperature at the power plant. With today's technology, that is not hard to do. And what I would say is, the State Water Control Board should follow the same methodology that West Virginia DEP is doing in the Mt. Storm permit. Similar permit, it's a fossil fuel plant on a lake, dammed up on the river, and the State Water Control Board should tell DEQ to go back and negotiate with the permittee and come up with an acceptable temperature base limit. Don't pre-determine that is. I mean go back and work it out. That's what West Virginians do. Go back and tell us, tell us what temperature you can live with. It has to be acceptable by both parties. We believe that this temperature base limit is important now, especially because of the potential human health problems with NF, the plan dying off. If we had a limit in temperature, then we would

know where we stand relive to the current fish studies that are going on, and you wouldn't have to with until you have major fish kills or major problems because of the BTU of the fish polluted place.

My next thinking is on the flow release and lake level management. As you know now, we are in the middle of another drought. Last one was in 2001/2002. All over Virginia. Lake levels are down, currently now over 32 inches from the normal pool level. Many lake front owners can't launch their boats. The Board of Directors of LAC are very concerned about that. When the lake level reaches, reached 248 feet, the lake level contingency plan went into effect, and Lake Anna outflow is now discharging 20 cubic feet per second. The following changes are requested in the permit which does not violate the Virginia General Assembly statute of 2000.

While discharging the 40 cubic feet per second at 250 normal level, when the lake level drops down a foot, the flow over the dam should be staged from 40 to 35 to 30 to 25 to 20, and then when you get to the 248, you would be at 20 right where we are now, instead of taking a spike step, you SO gradual, leaving a little bit more water in the lake; still provide downstream users and the aquatics, the necessary water as we are

currently doing now.

Second would be our request that in the spring of the year that we increase the level of the lake by three inches up to where it currently is. At that point start to reduce the 40 cubic feet per second, instead of dumping the whole pile over the dam at that point you would save a little bit more water in the lake, a little bit longer in the spring until you couldn't support that with the input into the lake, and then you would just start going back to the normal situation.

My final request is that the State Water Control Board consider these things and direct DEQ to put these modifications in the permit renewal.

Thank you very much for your time.

MS. BERNDT: Charles Grutzius. Something like that.

MR. GRUTZIUS: Close enough. Mr. Chairman, Madam Vice-Chairman, Members of the Board, I'm Charles Grutzius. I stand here today as a grandfather, father, the elected President of a Homeowners Association on the private side and a full time resident of Lake Anna, and most importantly a concerned Virginian about the quality of water in the cooling lagoons of Lake Anna.

We moved here for the environment, the

lake environment. We don't want to see this wonderful quality of the life diminish by possible future actions, i.e, amoeba and so forth if we are not there to take care of those actions today. I want to talk about three things: The Amoeba Naegleria Fowleri; the fish and other aquatic life and other wild life and aquatic life in Lake Anna; and the designation of the cooling lagoons as public waters.

As you know, (comma)the Amoeba Naegleria Fowleri was found in nine locations just this past summer. Four in the public side and five in the private. According to the Centers for Disease Control, I'm sure you know these figures, between 1995 and this year, thirty-one deaths have been specifically attributed to the amoeba. And that doesn't include all the other deaths that they never determined that possibly could have been. There is only a three per cent survival rate here, people get this amoeba. Fortunately, with the Grace of God, no amoeba deaths have occurred in either the public side or private side of Lake Anna. Fortunately, we are lucky that way. I trust that we don't have to wait for one or two deaths like was briefed early this morning before we take action. If that was my child or grandchild, that would be one or two too many deaths.

Concern about this fish and other aquatic life. The extremely high temperatures of the lake, including the cooling lagoons, are having an adverse effect. Preliminary studies already indicate that this may be happening, happening to specific mussel and clam species. I am a fisherman, and I would not like to see a decrease in fish or other aquatic life be detrimental to the overall quality of water in Lake Anna. However, I fear that we are heading in that direction if proper permit doesn't take place.

Finally, the cooling lagoons, as you heard many, many times are not considered public waters. If they were, they would fall under more of the guidelines of the Federal Clean Water Act, and have more restrictions placed upon VEPCO in the care and feeding of Lake Anna. These restrictions would necessarily include maximum temperature guidelines. I urge you to treat the cooling lagoons as public waters of the U. S.

In summary, I strongly urge you, because I'm still within my three minutes, to delay voting on this permit until more insight can be gained on exactly what impact this permit will have on Lake Anna.

In closing I will leave you with one sobering thought. If any of you lived on Lake Anna,

specifically the private side, would you, your children, grandchildren, like to be swimming in a lake, even though the risk may be small now, that the risk still is there, that they could very well become sick with Amoeba Naegleria Fowleri.

Thank you for your time and consideration of this matter, and I appreciate your services for the State of Virginia. Thank you.

CHAIRMAN MILES: Thank you.

MS. BERNDT: Willie Gentry.

MR. GENTRY: Good afternoon, Mr. Chairman, Members of the Board. I am Willie Gentry, and I am a member of the Louisa County Board of Supervisors, representing the Cuckoo District. Cuckoo District, I'm district Cuckoo District, and some say it's appropriate I'm representing them.

I really, it's amazing I suppose, how you use some of the same words I was going to use because we have both sworn to take care of the health and welfare of the public, and that's my main concern. If you look at one of the maps that Mr. Grutzius showed the circulation, you can see right at the throat of that map, the discharge. You will see actually little subdivisions there. You come on down to where the circulate comes to the lagoon, about a half a dozen

sub-base are involved. All in my district. So I have to be concerned about the safety, health and welfare of the general public. I was sworn to do that but in this particular case directing or co-directing effect on the safety, health and welfare.

I really do have concern that we are talking about a thirty-four hundred acre body of water, and yet when I see slides first hand, it does not protect water quality and does not protect people. I really -- Fall back is worth, how can that be true? We have heard that Dominion is picking up on their monitoring, which I know they are, but yet there is no regulatory authority of those facts; so are they really going to do us any good?

The amoeba question. I think, I feel like I really don't know enough about the amoeba. It is alarming that it has existed, and there have been some deaths here this year, and we hear, of course, the higher the temperature the more chance is.

I was given a letter by the Health Commissioner probably about a year now, saying the risk is so low, don't worry about it. Well, I'm not fully convinced. I'm hoping there is going to be a lot of research coming out of this death that has happened this year, so we get a better feel for that. It's scarry.

Like the gentleman just stated, the first child was killed maybe because of the amoeba and it made me get excited about it. I would like to think that some research could be done before ut gets to that point. So the temperature being as high as it is, it is obviously creating that higher risk, in my opinion.

I would like to say I think Dominion will get themselves in trouble I think over the lagoons and they actually said neighbors come along, come across their property, and just have this nice warm body of water they can play in, and now we got the lack of regulatory control trying to protect the public. Hopefully we can work some of that out. The bottom line really is to me, let's just all of us do our job and protect the public and the way we can do that by permit. Let's really take that as a challenge. That's what I would really like to see happen. Thank you.

MS. BERNDT: Christopher Paine.

MR. PAINE: My name is Christopher Paine, and I direct the Nuclear Program of the Natural Resources Defense Council on behalf of NRDC's 1.2 million members and online activists, about 28,000 of whom live here in Virginia.

In the very short time I have, let me try to summarize where I think this issue stands. On

the one hand we have numerous local state, and national organizations and Lake Anna and its users need and deserve protection, protection to which they are entitled to under the Clean Water Act, from the excessive temperatures at which Dominion is discharging cooling water into both the hot side and the cool sides of Lake Anna. Everyone admits that these cooling discharges cause the receiving waters to exceed, in some cases drastically, the Clean Water Act's standard for temperature for this class of water. So there shouldn't be any dispute about the factual basis.

On the other hand, we have Dominion, which is, by the way, an acutely self-interested party in these proceedings; and third, the state's Department of Environmental Quality easily agreeing that there is no cause for concern, and that the only necessary limit on these thermal discharges, that the very limit has been in place for decades, namely the maximum amount of heat that these two reactors can theoretically generate, theoretically capable of rejecting into the environment. So it's really strange that definition of the word limit to say that the maximum designed parameter, the heat rejection is an environmental control. The plant couldn't do more than what it is allowed to do.

I think there are larger issues at

stake here, in this entire picture, in the future of the watershed for the next twenty years. This plant has a license extension, can operate for another twenty years, two units at least.

They implicitly urge you to forget about the increasing residential, agricultural, and industrial demands on this rather small watershed. Increase evaporation from the trend for hotter, drier summers, and the bacteriological risks of prolonged exposure to warm fresh waters. What they propose as a standard, what has been the standard, is what? It's a fish survey.

The only adept evidence adduced, the only evidence adduced for the conclusion that the status quo is fine with the Lake, is VDEQ's statement, once every five years that some anonymous officials, with unnamed credentials, have quote reviewed the preceding five years of privately conducted fish surveys. The surveys conducted by the applicant, and it concluded that these studies reveal no significant degradation in the indigenous population of aquatic life of Lake Anna and the North Anna River downstream. First, I can't help noting that the health of a supposedly indigenous fish population is a somewhat questionable opportunistic yardstick to use for assessing the health of an

artificial lake, that weren't indigenous, and it's a lake that is periodically restocked. And it's a standard that has been used to the exclusion of other relevant environmental factors and risks.

Second, I note that the 316(a) variance in the Clean Water Act, that provision requires that thermal limit, the alternative thermal limit must assure the protection and propagation of a balanced, indigenous population of fish, but also shellfish and wildlife in and on the body of water. Well, the survey that was conducted here for the last twenty years, doesn't involve shellfish and it does not involve wildlife. So it would seem, on first examination that VPI, I mean that Dominion and DEQ are in violation of the 316(a) provision. I know there are regulations, many regulations that allow some proxy views of the health of fish population, but if you just look at this in the perspective of protecting, are we sure that the elevated water temperatures are not harming the shell fish and wildlife in addition to the fish of the watershed? The answer is we don't know. We have not been studying that, and that has not been the criteria for the variance.

Further, on the question of the plants. We now have definitive evidence from VPI saying we know

nothing about the plants from the survey. They have written a letter to DEQ stating we have no mussel survey data from Lake Anna, and they further note we are concerned over potential impacts of elevated temperatures upon native freshwater mussels.

It would seem to me that there is really not a very robust structure of having evidence supporting this variance. I have asked many people whether they have ever seen these fish surveys, and Ken Remmers is the first person who has seen one or two of them. I searched for them on the web, can't find them. I eventually identified the name of an official in Roanoke who is supposed to be custodian for these kinds of survey that are used to support thermal variances. Maybe I will get it, maybe I won't. But I don't think anybody on this Board has referenced to this survey. And I think if you do, it is secondhand knowledge, I would call it, there is really not very much to them. There really is very little in the way of environmental assessment cropping up this variance.

There are two additional problems that I see here with this cozy arrangement, beyond the ones I have noted. There is something anomalous about the applicant up to the permit being able to submit without any systematic pier review. It's own survey to support

the viability of their application. I find that at least there should be periodically an independent survey undertaken, if we are going to continue to have a variance of the hind. And I say it has to be broadened, I think, to encompass the larger wildlife population.

There is also a problem, of course, of certifying supposedly a healthy fish population now simultaneously contaminated by PCB's. I don't find that as a highly persuasive demonstration of environmental health.

But no where us there more of a blind spot than on the question of the human health consequences of persistent elevated temperatures. That's really what we are looking at here today.

In its summary of public comments, VDEQ responded to concerns about Naegleria, by the assertion, first, that there was no public access to the Waste Heat Treatment Facility, which we happen to know is not true. There are members of the public who have been in there and dropped fishing lines off of it, and a public road, and otherwise gaining access as visitors to people who live on the shore.

And then VDEQ suggested that the remedy to this problems, should simply be to recognize the risks of swimming in hot temperatures, and people should

consult Dominion's new web page for real time temperature data for the discharge canal. But elevated temperatures in the main body of the lake, the staff stated it does not have any reason or evidence that any of the discharges to Lake Anna are a threat to human health.

On the contrary, NRDC believes there is a public health threat from elevated summer water temperatures in Lake Anna that should be taken seriously, and the context of climate change, recurrent droughts, and reduced lake volume, this threat is only going to get worse. While this threat is clearly less probable today than other recreational water risks, like drowning, clearly in far less than that. It seems to be growing.

The reason I think so, that's what the CDC, the Center for Disease Control found, according to the CDC, Naegleria infected twenty-three people from 1995 to 2004. But this year there are six reported diagnosed cases, all fatal, all of them children or teenagers who were who were just having a good time in warm water. I submit that they are a little girl of **** County who goes down on the water's edge, isn't going to first check the water temperature. Here is what Michael Beach, a CDC specialist in water-born

illnesses told the Associated Press: This is a heat loving amoeba. As water temperatures go up, it does better in future decades. As temperatures rise, we'd expect to see more cases.

Now two years go, the State Health Commissioner, Dr. Robert Stroube, wrote a letter to VDEQ: And pointed out that scientists have isolated pathogenic Naegleria from thermally power plants effluents in Virginia. The organism begins to proliferate at temperatures around 86 degrees Fahrenheit and thrives especially well at temperatures of 35 to 45 Celsius, 95 to 113 Fahrenheit. The representative from Dominion just told you our only limit, temperature limit they are prepared to observe is 95 degrees Fahrenheit intake limit to the plant. Ut's not clear from what was said, whether that is a licensing condition, or a voluntary limit, or some other design criteria; clearly it is not imposed by anything that this body has done. I just wanted to submit to you, there is another form of Naegleria, the cyst form. And it's a risk in arris conditions, and so there is a two-fold risk here if the lake dries up, the cystic form can be on the submerged, pre-submerged lake bottom, creek bottom, and can be inhaled. And that, I'm not saying these are highly probable threats, but as the CDC experts said going

forward, you need to think about pursuing that will preclude, preclude people getting infected. I think that should be involved.

CHAIRMAN MILES: Are you about to wind up, Mr. Paine?

MR. PAINE: Yes.

CHAIRMAN MILES: Your time has expired. If you can give us in two sentences -

MS. BERNDT: Nine minutes are gone. You are now over eleven minutes.

MR. PAINE: So let me suggest a remedy. Let me suggest a remedy.

CHAIRMAN MILES: Quickly, please. Very quickly.

MR. PAINE: My remedy is for this Board to do what numerous other states are doing. Including other states involved **** upon receiving waters. It has been done in Vermont, it has been done in West Virginia, it has been done in Connecticut and also in facilities. There are numerous power plants going through the same kind of considerations we are doing here. And I think if you fail to take this step now, you are going to be forced with a choice later on, either shutting down the power plants in the hot summer conditions, in order to preserve the environmental guidance and recreational use of the lake, or abandoning continue to operate the plant

and dam eco system, that happened, those kind of things have occurred, and there is no reason to sit here and impale on the horns of the dilemma. We can systematically plan our way out and Dominion can, under the instructions of this Board, mitigate their thermal emissions with various cooling technologies, and I think that's a very affordable goal and supported by the State Corporation Commission, so there will be no real financial burden on the need to comply with the temperature limit.

CHAIRMAN MILES: Thank you, Mr. Pain. Questions? Mr. Thompson, did you have a question? I have a question.

We have been presented with a temperature data document. Have you seen that?

MR. PAINE: Yes, sir.

MR. THOMPSON: Are you aware of any evidence that would tell us, for example, how much of this 88.9 degree temperature reading in the main lake opposite the outfall from the cooling lagoons is attributable solely to the heat that is dumped into the cooling lagoons up at the outfall of the canal?

MR. PAINE: No. There are various ways of trying to assess that. One is to look at the reservoirs around it in the same region at the same time of the

year that don't have a nuclear power plant on them.

MR. THOMPSON: We have nothing in the neighborhood comparable to this.

MR. PAINE: No. As far as I know, we do not. I looked --

CHAIRMAN MILES: So what other **** do we have?

MR. PAINE: What is there about this? These are mean values. The critical issue is the time distribution of the peak value. Don't swim at midnight. So if you use a chart like this showing mean values --

CHAIRMAN MILES: What I'm trying to find out, maybe right there, maybe you can help me is, about how are we able to measure the actual temperature increase attributable to this heat rejection?

MR. PAINE: In this particular case of Lake Anna, I think it's a very complicated modeling problem. The way to short circuit that is to look at other water bodies in the same region, Albemarle County reservoirs, Lake Louisa, Smith Mountain Lake. I think if you do these, none of those lakes reach summer time temperatures like Lake Anna. I checked those numbers. They just don't get there. I tried to back it up quickly, just looking at the mean values there seems to be like a three to four degree mean value difference in peak summer time between Smith Mountain Lake and Lake

Anna. I don't, but other people here may know, but the more localized, you know, for the same time of year. Lake Anna is a recirculating pattern. Other lakes have a summer thermal climb where it's top, top meter or so, it gets quite hot, then as you go deeper, it drops off rapidly. I'm not, I'm not acquainted with the details of Lake Anna. It's an interesting question you have asked. And I don't know the answer to. But I think you can sort of back out that there is a, you know, there is an appreciable contribution from the nuclear power plant at those peak times.

MR. REMMERS: I can shed some light on that.

CHAIRMAN MILES: If you can shed some light, come forward and state your name, please.

MR. REMMERS: Ken Rammers, again, from Lake Anna Civic Association. We did studies for the past two summers now on a lake that is close to Lake Anna, Lake Louisa, about a seventy acre lake. Fed by one creek, Hickory Creek, back into the North Anna River. Those temperatures there are the same meteorological conditions were 5 to 6 degrees lower in temperature than Lake Anna running all the way up to where the State Park is, which is about half way up the lake. And the North Anna River that is feeding Lake Anna up there was about 14 degrees Fahrenheit. So, in a sense we have some

guidance that tells us that if you didn't have the power plant there running, you would probably be at least six degrees lower temperature.

MR. THOMPSON: Did anybody try to determine the heat load just based on the solar?

MR. REMMERS: It's difficult, because the changes would be meteorological conditions, but I figure when I did that study that these, both lakes saw the same meteorological conditions, same amount of sun, same heat load going into the surface of the water. That's how close we can get.

MR. THOMPSON: One question, please. Did you calculate the differences in exchange in those two bodies of water? Were they similar?

MR. REMMERS: You mean volume to volume?

MR. THOMPSON: Volume, time period of exchange from entering to exit?

MR. REMMERS: No, on Lake Anna we have no outflow measurement. The gaging station was in place twenty miles down, and Lake Louisa has no measurement of the outflow. But there is outflow going out of both of them.

MR. THOMPSON: Might I pose a question to Mr. White at this time? Mr. Rammers, I'm going to ask you to stay. Related to the outflow, you have been under a

requirement, except during drought periods, to release 40 cubic feet per second. I understand the gaging station you put in downstream, but obviously you had to have some way of gaging your discharge, did you not?

MR. REMMERS: Yes. Yes.

MR. THOMPSON: And I thought that nod was a yes. And you are comfortable, you have in fact been discharging in compliance, you have in fact been discharging in compliance with the permit.

MR. WHITE: Yes, we have.

CHAIRMAN MILES: I guess historically we have, what we have done operated our skimmer gauge.The clam has a skimmer gauge, takes water off the surface, and a radial gauge that goes deeper if we have flooding conditions. We have operated the skimmer gauge at a certain level, and have done it since, several decades, that represents that minimum release. Now, it's based on looking at data at the gauging station that is further downstream, that Tom was talking about, and there is not a whole lot of inflow. As you go through that in the watershed. But we agreed with DEQ this time that we needed a gauge a half mile down to get a better estimate, enhance what we were doing. But we were confident, you know, that we were at that level, and physical release of the water from the skimmer gauge.

CHAIRMAN MILES: And the release is off the top of the lake?

MR. WHITE: Correct. Normally the skimmer can go down from the surface seven feet. We typically believe about a foot-and-a-half, about 40 cfs. Does that sound about right to you, Dave?

MR. VAN GELDER: That is correct.

MR. WHITE: I would like to address, may I address something else about temperatures, if I may? Mr. Chairman, **** discussion period pretty soon?

CHAIRMAN MILES: You have peaked my interest.

MR. WHITE: First of all, I want to say you can take data, we have 4.4 million data points. you can do all sorts of things with it, you know, as far as mean ranges and maximums. I want to tell you this, when I was involved with the 316(a) studies in the mid-'80's, and we had a technical group with us, third parties and all, federal, state agencies one of the key points we had in the study that in the upper lake, if you look at your map, in the very upper reaches of the lake, Southern Maclin Bridge, we all concurred that was out of the influence, if you will. Now, of course, it's shallower, it's narrower, you know, but we had temperatures about 92 degrees up there, which exceeded the state standard of 90 at that time. So that was an

important point to consider while we were going forward. Last year was probably one of the warmest years we had in Lake Anna, 2006. We had 92 degrees again in the upper reaches of the lake; about 91/92 in the lower reaches. So I do think meteorlogically there is a big influence. Now I don't know what the data shows, specifically, but it is both incremental increases with the thermal. If the Waste Heat Treatment Facility was operating at one hundred percent efficiency, Mr. Thompson, one hundred percent efficiency, that would alleviate prior to the stand. We would have need of 316(a). But it's not one hundred percent. You release, you get rid of most of the heat and that's why we had to do a 316(a) because we realized there was some excess heat getting into the lower lake, and we opted to go the 316(a) route to see, you know, whether the current standard is appropriate or not. I just wanted to bring that up.

CHAIRMAN MILES: Yes. Just stay there. Don't even go back to your seat just yet.

MS. JAIN: **** comments about **** it seems like from those who are opposing the permit right now are looking for some maximum temperature control. Setting aside my legal concern as to whether or not this Board has the authority to require that of you, what are

the operational consequences of your facility as it is currently operating, for you to be ale to meet some sort of standard of a maximum temperature of 32 degrees Celsius, is that even doable?

MR. WHITE: I mean, you know, you are talking about 90 degrees, 32 is 89.6. 90 degrees, if you imposed that, at the heated discharge point, **** if I understand your question --

MS. JAIN: Yes. Exactly. Exactly.

MR. WHITE: We certainly could not fulfill compliance one hundred per cent of the time. I mean of course winter time, you know, spring would be okay, but the vast majority of the summer, it could be difficult. And EPA mentioned that in their September letter. What we would probably do is look at the 316(a) option for the Waste Heat Treatment Facility, to see is that more stringent. Hypothetically, that is probably the way we would go. But the uncertainty of the outcome, but there is that potential that you would have to reduce load.

CHAIRMAN MILES: Okay. Absolutely. Let me rephrase your question. The same question she asked, but not at the outfall of the Waste Heat Treatment Facility. But the outfall into Lake Anna itself on the cool side, operationally. Under current operations, how are you going to set a temperature limit that you could

safely meet?

MR. WHITE: Operationally again, first of all, as you know, our position is that the temperature is problematic. The temperature is maintaining downstream population and all of that. But we conceivably would be talking about a decent level or something.

CHAIRMAN MILES: I asked a slightly different question.

MR. WHITE: I'm sorry.

CHAIRMAN MILES: I'm sorry. I apparently didn't make myself clear. What temperature limit operationally --

MR. WHITE: Operationally.

CHAIRMAN MILES: At the outfall on the cool water side of the lake could you meet under historic conditions?

MR. WHITE: That is an interesting question.

CHAIRMAN MILES: I like to ask interesting questions.

MR. WHITE: I know. We have twenty-five years of data. When we started operating in '78, and meteorology in the area is hard to predict up and down. The highest temperature we have every reviewed in the lower lake is about 92.3 or something like that. I mean, who is to say what is it going to be three years

from now, or whatever. It's going to bump up a couple of tenths. Theoretically, all you need is one tenth above whatever number you set. We would have to assess that. I can't answer the question directly. When you say this is the number we can live with, I can't do that at this point.

CHAIRMAN MILES: Let me ask one more follow-up, because I read the EPA letter perhaps more strictly than Mr. Bailey, perhaps not quite as absolutely as I phrased the question to him; I do think that where the process is moving in terms of permit renewal is using the data you generate if this permit draft is approved today leads towards some terms in the future. Are you optimistic that at the end of the five year period, you could give some answer, numerical answer to that question?

MR. WHITE: Instead of optimistic I'm saying uncertain. I really don't, there are so many caveats and uncertainties, I'm certainly willing to discuss with DEQ about ****.

CHAIRMAN MILES: If I may add, the only thing that concerns me **** you heard the watershed is greatly changing. And as you cut down trees, and you build houses and roads, all that is going to affect temperatures as well. My mission, my goal, is to assure

that the limits that you are placing in the permit are, can be traced to our standard protection of our standards. Right now with the data we have, with the information we have, we are quite content that the heat rejection limits, are doing, what it is, that is being asked of them by the permit. Earlier there was a question that would we do if we started to see some changes, biological changes ****I would say I would convene a panel of experts and make people well aware of the fact of the influence on the lake, need the Waste Heat Treatment Facility, on more than just the discharge. So one of the reasons again in answer to your question, the survey biological community analysis and so forth, was to initiate that review, you know, and why don't we just put a temperature limit in these right now. The answer is, I don't know what that answer is, and I don't know, fair enough. I don't want to commit to say an unknown in five years.

CHAIRMAN MILES: I understand that right now we don't know the answer to that question. I think probably it is a broad concurrence today any numerical limit that we put in would be arbitrary. I don't presume -- While you are up there, won't you come back a minute, Mr. Walker. Since you are at the microphone, we have heard speakers, I don't want to misquote them, or

put words in their mouths, but the implication was that through this process, leading up to this renewal, that we had a request from DPIF to do a bi-annual study by a state certified malacologist that that condition be written in the permit, because we, in fact, receive such a formal request from DPIF. We just have -- When it is a request -- --

MR. WALKER: Bryan Watson **** report, and we had communicated to Bryan at that point that to say I'm Bryan **** In our conversation with DGA over the years, we would like to see the monitoring include more. And with that, as we do in many permits, we instruct the permittee by saying you are going to submit to us a monitoring plan for our approval. And that is what we have done here. Bryan's comment merely just mirrors what his colleagues that we typically do in the regional office have been saying. And so to be honest, I don't know if it was me or somebody on my staff relayed back to Bryan, we will get to that, we will get to that through this survey. The monitoring compliance. In short, what we are looking to, we are asking to do more, for that special condition in the permit tell Dominion we want them to resubmit the monitoring studies, the protocol **** to engage in that kind of activity. My committee doesn't lend itself to trying to get a permit

out the door; so it's a tool that we typically use for many of our permits, ground water monitoring plant, or a stream monitoring plant, a sewage treatment facility. That's what we do, typically. When that time comes, we will certainly ****.

CHAIRMAN MILES: I guess what I'm asking for is some **** where a sister state agency with the same secretariate ask us to do something that is reasonable, for a reason that is not reasonable either that we defer to the expertise' request of the agency or we very publicly state why it is an unreasonable request. What I'm hearing you say is that this request is going to be honored in the monitoring process.

MR. WALKER: That is correct. And Bryan is just one person in DPIF up there. There are several DPIF's who are going to give us comment on this one, and that's why I'm getting at and the biology of algae is not an exact science, and it is not a whole lot, everybody has their opinion and so forth; and that consensus building process, and it's really best handled outside the permit process. This is how we do typically, how we determine assurance how we are going to do it with this process. So Bryan's comments you know by no means will be ignored, and will be addressed.

CHAIRMAN MILES: I understand SPIFF has their

own process to go through, and I don't think Bryan, I really don't know Bryan showed up to speak today. I'm not interested in what some particular single individual might have said; but should we receive a formal request from DPIF **** indicate either honor it or give a very substantial reason basis for now honoring it in a very public way.

While he is up, any further questions from the staff?

MR. WAYLAND: Yes. I have a question, and it certainly is built on your question and comments, Mr. Chairman. And it's really for Dominion and DEQ, and that is first of all, it's not at all unusual in environmental management to have permittees or applicants furnish substantially, a substantial body of information on which the regulatory decision is ultimately made. We are just going t have to operate that way. But given all the priority on this, it stakes where, Dominion stakes for the case of property owners are concerned, citizens, it seems to me that it would probably behoove Dominion and DEQ to have a process for developing monitoring studies for fish, shell fish, and wild life, which involves some independent scrutiny, some involvement by a broader set of people than the regulatory agency and the applicant. And I just wonder

if Dominion is willing to undertake a proc3ess of developing protocols for the study that would be a participatory process and would allow people to provide some input and take a look at the monitoring plans and protocols as they are developed and submitted to DEQ?

MR. WHITE: Yes. I would like to address that. Certainly we would entertain discussions about how to proceed, but I'm sure, as you well know, NB program is a self-reporting, self-enforcing, escalating **** the vast majority of permittees out there do their own reporting. There are audits and things that you do, and checks and balances and things, but we certainly have high regard for our biologists, but we would entertain, if there is a desire, to have others. I will say this, that again I was specifically involved in the original 316(a). Wildlife was considered. I remember studying ducks, and shellfish, and fin fish, and a lot of those are very, very broad comments appropriate. We can negotiate throughout the years about exactly what we need to do to continue **** and that's just the way it is generally across the country. But we would entertain other discussions about monitoring and sampling, and typically we do a lot of that throughout our system. Does that answer your question?

MR. WAYLAND: Yes. And I appreciate that, and

the second really comment I was going to make, based upon the discussion about how the watershed is changing, is that it seems to me the principal purpose of the Waste Heat Treatment Facility is to state waste heat. Really, and Dominion has substantial control over the lands that border the facility that that is really not a place where you want to have a lot more parking lots, a lot more land clearing, and activities that are going to create heat in-puts to **** you really need to use for the principal purpose for which you are apparently constructed. I would think that Dominion would be exercising some very strict control over other activities that take place on that private side of the watershed.

MR. WHITE: You are right on target with what we are undergoing currently. We are assessing our protocols and procedures for access and permitting access to piers and docks, grass, et cetera. We are taking definitely a little assertion in this because development is increasing, you know, as Tom has told me many times, what comes out of that creek we are responsible for; so we do have to take an interest in that water and we are doing that.

CHAIRMAN MILES: While you are there, if you could answer another question about the public access.

We had heard earlier that there really wasn't any public access on the Waste Heat Treatment Facility side. And we heard subsequent testimony that there was some thirteen sites where the public was granted access. Can you clear that up for me?

MR. WHITE: Yes, I will do my best. I understand better access across, public access, but I use the term it's not general public access, because there is no commercial establishments on the creed, no marinas, et cetera, bait houses, or whatever, but the public, in the sense of landowners, are allowed to come in, and we perhaps give licenses for access, et cetera. There are a dozen or so access point, my understanding, is we have council here might help further clarify this, but we deeded over to the Department of Transportation various land areas for them to build bridges. So. in fact, there are certain small areas around **** Department of Transportation Office for their bridges and people do have access to go around--and really you don't, GOP property not our property. I don't think they, they are not classifying it as public access for people, just using it. Nobody is saying -- --

CHAIRMAN MILES: So there are not boat landings or --

MR. WHITE: No. No. Nothing like that. People

walking in, live in an open area, walk down beside, as you have seen many times, go across the strait, people use a little rip-raft, get underneath the bridge, little cooler there and they fish. That's my understanding of the majority of the access points.

CHAIRMAN MILES: Parking beside the no parking signs.

MR. WHITE: Yes. Well, probably somebody drops them off. Does that answer your question?

CHAIRMAN MILES: That answers that question. Anybody else?

MR. WALKER: I would like to follow-up on what Mr. Way land said very briefly. There is some kind of vague reference in our Board Book relative to development impacts in the entire watershed around the lake, and I think all those impacts need to be looked at from the development point of view, particularly since it's mostly occurred since this lake was created, and what was in our Board Book was not specific on the impacts of heat related issues coming from the development around the lake, I think as we move forward with this permit that everybody needs to be included on what the future and current impacts are.

MR. WHITE: I con cure.

CHAIRMAN MILES: I have a note in a different

direction, about the drought protocol of twenty-two feet per second; the drought protocol.

MR. WHITE: Say that again, sir?

NOTE: (Talking over top of each other.)

CHAIRMAN MILES: I hope you all get rain.

MR. WHITE: The rain, I spoke to the station this morning, and the lake has gained a tenth of a foot, or a little less, over night, and it was 247.3, and it is raining cats and dogs, I was told, so I'm hoping it will continue at that rate until Saturday.

CHAIRMAN MILES: That would be sweet. Where, I'm almost hesitant to ask the question. Where did that number come from?

MR. WHITE: The twenty-two -- --

CHAIRMAN MILES: The twenty-two feet per second.

MR. WHITE: The twenty-two feet per second? Well, first of all, let me mention, this was initiated by the State General Assembly, as you know. Dominion did not have any interest in this. This was initiated by the State legislature. We just certainly want to comply with that. We worked with DEQ in implementing compliance with this requirement in the State Code. We have had several code meetings, several meetings, including downstream interest, lake interest, DEQ, and it was decided that we would incrementally go down to

40. We did do it incrementally go 5 cfs difference every seventy-two hours, until we get down to 20. And really the downstream interests, you know, didn't want to go any further than that. They wanted to stop there because they were concerned about their uses, downstream, the beneficial uses downstream, so we all concurred that 20 is a good stop number.

And I would also like to say in the permit, I believe this is correct, after said the adverse impacts of downstream users, they could call us up, we could rack it back up five degrees cfs as well. Our interest, nobody's interest to have an adverse impact of it.

CHAIRMAN MILES: Cfs is not actually written in the legislature, but rather the process --

MR. WHITE: No. Not in the legislation, not in the regulation process, regulatory process, not the statute. The statute -- ****.

CHAIRMAN MILES: And one last comment that I will make -

MR. THOMPSON: Do I get to ask a question?

CHAIRMAN MILES: Yes. I will let you. One moment. The gage control installed based on my experience in my watershed and my SUDS gage is also dealing with your chief competitor in the Commonwealth

in electrical power generation and transmission; I always had a whole lot more confidence in their major discharge through the dam, than I have had in the stream's low gage, given chapter and verse, going back 50 or 60 years about anomalies that don't make sense.

MR. WHITE: I will tell you that, USDS has been at this location a lot in the last three or four weeks calibrating a few things, trying to get things right. But I will take that heed, and will, but I understand exactly what you are talking about.

CHAIRMAN MILES: They have been calibrating and enabling it, too, and it still doesn't always make sense, does it.

MR. THOMPSON: Mr. White, didn't I understand you earlier to say that your intake temperatures could not exceed 95 degrees?

MR. WHITE: That is correct. There is a technical requirement that we have. If you would like additional information about that, we have a station representative here. Would you like some further information about what that is based on? Or --

MR. THOMPSON: No.

MR. WHITE: No? Okay. I did say that, yes,I did. We have a technical requirement that we have to assess the safety plan when temperatures reach 95.

MR. THOMPSON: I would assume that imposes a practical limit on the temperature of the lake that you are concerned about.

MR. WHITE: As we talked about earlier, there is a delta T between intake and discharge typically forces you, depending on the flow, but, yes, there's a practical limit set.

MR. THOMPSON: I wanted to ask Mr. Paine if he was aware of the -Do you take exception to any of the temperatures on this document, other than the fact that it's a mean and doesn't actually recite --

MR. PAINE: No, that's correct, just using the same today --

MR. THOMPSON: What I'm looking at here is down near the dam. The highest temperature is 88.9 degrees, and it seems to me that the lowest temperature is up in one of the tributaries, which is 86.7. Am I reading that correctly? We have less than what, two degrees? About two degrees across the whole lake in August.

MR. PAINE: Yes. I mean, the problems, essentially, I guess that's the northwest end of the lake, it looks, it depends on how you're measuring that. It looks like a fairly shallow tributary of the lake, elevated to 87.3reading, so apparently north central, northwest of the bridge there, the temperatures do drop

off in the main body of the lake. There is a difference between the northwestern third and the rest of the lake.

MR. THOMPSON: But you don't question --

MR. PAINE: I'm not questioning -- My point was that the exposures going forward are to people swim typically from 10:00 to 5:00, and so the exposures we see later, later even in the summer, and so the exposures are ally worse for the pack value than they are to the mean value.

MR. THOMPSON: How much do you think the temperature changes between --

MR. PAINE: About three, three dorees difference, typical.

MR. THOMPSON: Across the board?

MR. PAINE: Three degrees C. So it's a bigger difference in Fahrenheit. Three degrees Centigrade.

MR. THOMPSON: In anybody's water? Does that depend on depth?

MR. PAINE: Talking about temperatures in the first meter. Switch explain typically in the first meter. They do decline as you go deeper.

MR. THOMPSON: Okay. Did I understand the Health Department representative to say that this amoeba growth accelerated in the 90's --(Talking over top of each other)

MR. PAINE: He did say something like that, but it was a little more complicated. This is a, the mathematical model would be somewhat complex. It would be several different slopes that occur. The risk really doesn't tip zero until you get down to really cold water temperatures. Below 85 the risk is fairly flat, but there is probably a slight slope there. During 85 to 95 the slope does increase, but not substantially. Above 95 the slope goes up, and by 104 it is starting to get acetonic, getting pretty vertical. Except 104 you start getting concentrations that look like they are dangerous. The problem we have here is, we have a rare event, so humanly it is limited, and then Naegleria fowleri is pathogenic to humans, is not pathogenic in the animal model, because in the animal model we have to use different species so you get data, but you are not real sure how useful it is. So the short answer is the risk never goes away. The risk goes up with temperatures by 104 we think the risk is unacceptable.25But the increase from 85 to 95 is pretty moderate. Thank you.

CHAIRMAN MILES: Mr. Kiser has a question.

MR. KISER: When you put on your new system or reactor, I guess, there was a, it was relative you are going to cool it a different way.

MR. WHITE: Yes, sir.

MR. KISER: Is there no way to put it on, part of it on the present water through part of that system, or back up and spend some more money and get the temperature down?

MR. WHITE: That has been brought up, of course, had discussions with all stake holders and this Unit 3 is being designed from bottom up, the whole system, to be a separate system, we are designing this as a closed cycle, meaning all you have to do is make up, it's not near the quantity you need to have one through system. It's also very uniquely hybrid from dry/wet, because we need to save water. We have some water consumption issues that we are addressing right now, but it is **** allowed us to do that. So you are faced with the system that you design with one and two from the very beginning, design once it went through versus a new facility that needed a system, mesh issues with, water system, issues with certain high temperatures, so we did initially have one that went through, then changed it to a closed cycle after we had concerns with the public and DEQ. But it's a s9imple case with having to design it that way up front as opposed to changing dramatically the design of the existing facility, which it wasn't designed that way. We did the whole facility, and the

Waste Heat Treatment Facility as an integral component as part of that facility; and so it's no way feasible in our eyes to do what you ask.

CHAIRMAN MILES: A related question that I have been holding in abeyance. It seems to me that out of the 2002 drought development that I heard some corridor talking at one point of the other, that Lake Anna's water levels are jeopardizing operations there potentially.

MR. WHITE: Here are the facts. The lake level in 2002, the lowest it got was in October, and it was 245.3, and that's at mean sea level, 250 being normal. The station is required by HR, the state can confirm, if I'm not correct here, that at 242 we have to shut down. That's 242. Is that correct?

UNKNOWN SPEAKER: That's the current limit. At that time it was 244.

MR. WHITE: At that time it was 244, and it hasn't changed since then.

UNKNOWN SPEAKER: That is correct.

CHAIRMAN MILES: So we got close in 2002. You got about 1.2 feet. Is that approximately where your intakes were located, incapable of --

MR. WHITE: Correct.

UNKNOWN SPEAKER: We lower out intake down

another couple more feet, gives us more margin.

CHAIRMAN MILES: And you got some safety modeling calculation, I assume, on the replication on THE 2002 drought, some predictions about for margin safety, that get you --

UNKNOWN SPEAKER: That is correct.

MR. WHITE: Yes.

CHAIRMAN MILES: And throughout that you still sustained a cfs discharge.

MR. WHITE: Yes.

CHAIRMAN MILES: Other questions? Any other Board Member have any other questions before we hear a recommendation? It is my understanding that there were no speakers. No other speaker? That was what I understood. Are we ready for the recommendation?

MR. WAYLAND: Ready for the recommendation? Do you mind if I just read it?

Staff Recommendation. The staff recommends that the Water Control Board issue NPDES permit No. VA00052451 and the Board Packet added to Page 14, 17 and 18 (unable to hear).

CHAIRMAN MILES: You have heard the staff's recommendation. Do I hear a motion?

MS. JAIN: I move that we accept the staff's recommendation.

CHAIRMAN MILES: Second.

CHAIRMAN MILES: Moved by Ms. Jain, seconded by Mr. Thompson. Any discussion?

MR. THOMPSON: I will explain my position, if anybody cares for it.

CHAIRMAN MILES: Explain your position.

MR. THOMPSON: I think the proponents have raised some important points, and Senator Houck joined us to consider public health and safety, which we do. I'm satisfied with the temperature picture on the greater lake based on the Health joined us to Department's testimony, although I'm no real expert on that subject--do not seem to be invading the danger area, (comma)I think there is a very practical limiting act, and that is Dominion's own operating requirement that they can't have an intake source in excess of 95 degrees, and that is at the point where the bacteria, the amoeba issue, becomes more acute, on a more steeper curve. So I think that I'm not completely comfortable with then Units 3 and 4 come along that by having a closed system that takes more water out of the lake, I don't believe you are going to get by with trickles. It's going to take a lot of water that is going to impact the evaporation rate, the quantity of water that will be able to cool the discharge. So I think that

these are an issue that we will continue to look at. But I'm satisfied that the permit addresses the issues that are most important to the public and meets the requirements that we are charged to be following.

CHAIRMAN MILES: Any other discussion? The public opportunity to comment is ended.

Obviously this project does appear to have some meat to that system. In fact, the system was designed, they could not be as hot if the project were not there, the lake would not be there, if the project were not there. It is a fairly small watershed. A rather large operation upon it. It appears that things have been weighed. I read the EPA as having us, in their response, to be looking very hard in the next five years to try to come up with I think there are some studies to be done there. There are some issues to think about down the road. But, Mr. Thompson, I'm satisfied that the Department of Health on the one hand and Virginia Power on the other, their right to intervene when they see public welfare and health at risk to intervene appropriately. The remedy to the public health situation at least in the short term as we are doing the studies move forward, and I assume the studies support the staff's recommendations.

If there are no other discussions, we

are ready for the vote.

CHAIRMAN MILES: Mr. Kiser.

MR. KISER: Yes.

CHAIRMAN MILES: Mr. Thompson.

MR. THOMPSON: Yes.

CHAIRMAN MILES: Mr. Walker.

MR. WALKER: Yes.

CHAIRMAN MILES: Ms. Jain.

MS. JAIN: Yes.

CHAIRMAN MILES: Mr. McKenney.

MR. MCKENNEY: Yes.

CHAIRMAN MILES: Mr. Way land.

MR. WAYLAND: Yes.

CHAIRMAN MILES: And the Chair votes yes.

The recommendation is accepted.

Thank you, Mr. Faha.

Thank you.

CERTIFICATE OF COURT REPORTER

I, Howard Keith Crane, hereby certify that I was the court reporter before the Virginia State Water Control Board Meeting held on October 25, 2007 at the time of the hearing herein.

I further certify that the foregoing transcript is a true and accurate record of the hearing herein, to the best of my ability.

Given under my hand this 22nd day of December, 2007.

Howard Keith Crane

Howard Keith Crane
CCR No. 0313034